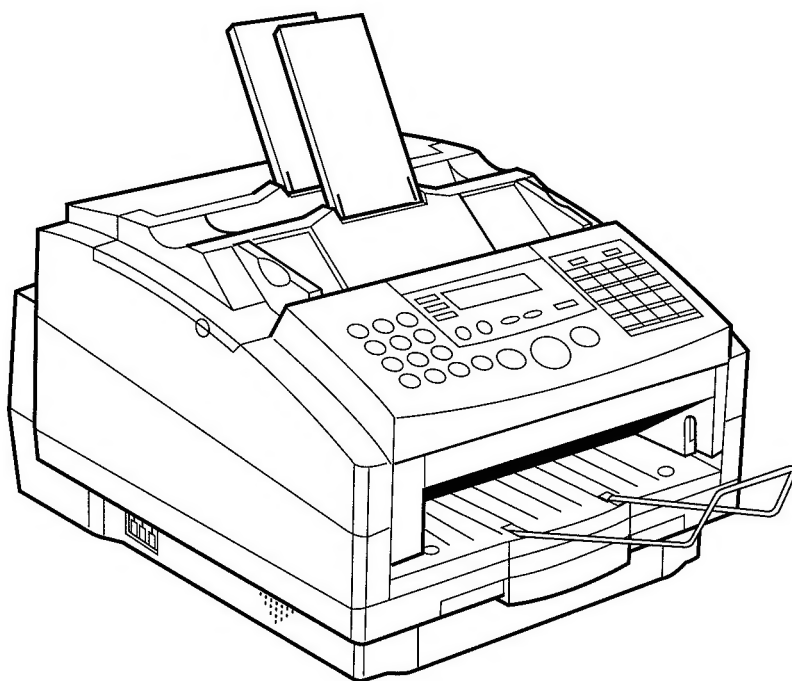
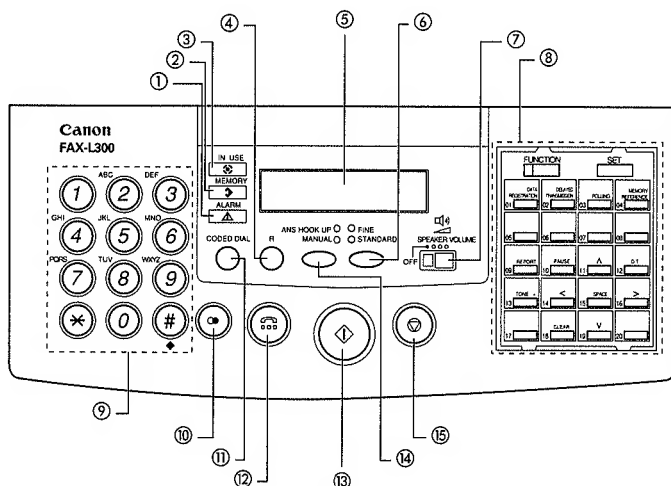


Canon FAX-L300



THE OPERATION PANEL



① ALARM lamp

Flashes when there is a paper jam, when the fax is out of paper or toner, when there is no cartridge installed, when the loaded paper size is incorrect, or when the printer door or front cover are open.

② MEMORY lamp

Lights when a document has been received in memory.

③ IN USE lamp

Lights when the telephone line is being used.

④ R button (UK, ECG) I.P. (ECF)

Press to dial an outside telephone number when the fax is connected through a switchboard (PBX).

⑤ LCD Display

Displays messages and prompts during operation. Displays selections, text, and names when registering information.

⑥ FINE/STANDARD button

Use to set resolution for the type of document you want to send.

⑦ SPEAKER VOLUME switch

Set the monitor volume of the speaker with this switch.

⑧ One-Touch Speed Dial/Special Function buttons

Use these buttons for One-Touch Speed Dialling and to perform special operations.

⑨ Numeric buttons

Use the numeric buttons to enter phone numbers when dialling. These buttons also enter text, numbers, and symbols when registering names and numbers.

⑩ (REDIAL) button

Press to dial the previous number dialled with numeric buttons.

⑪ CODED DIAL button

Press this button and then press a 2-digit number code under which you have previously registered a facsimile or telephone number for Coded Speed Dialling.

⑫ (HOOK) button

Press to dial with the numeric buttons when using manual sending.

⑬ (START/COPY) button

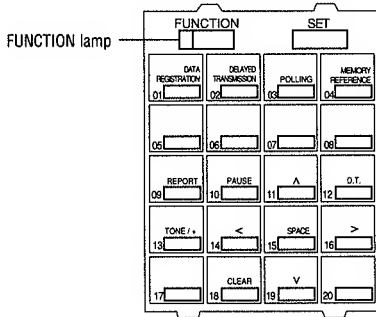
Press to start sending, receiving, copying, and other operations.

⑭ ANS HOOK UP/MANUAL button

When both lamps are off, the fax is set for automatic receiving. Press and light ANS HOOK UP when an answering machine is connected. Press and light MANUAL for manual document receiving.

⑮ (STOP) button

Press to cancel sending, receiving, or registering data, or to cancel any other operation.



- **FUNCTION button**

Use to select special functions such as Data Registration and Polling. The FUNCTION lamp must be lit to select these functions.

- **SET button**

Use to accept special function settings and activities.

The following buttons perform special operations when the FUNCTION lamp is on:

- **DATA REGISTRATION button**

Press to start data registration for facsimile numbers, names, and other important settings for sending, receiving and printing.

- **DELAYED TRANSMISSION button**

Press to start registering a time for delayed sending.

- **POLLING button**

Use for polling receiving.

- **MEMORY REFERENCE button**

Use to delete or resend documents stored in memory, or print a document or a list of documents in memory or memory TX.

- **REPORT button**

Use to print activity reports.

- **Search buttons (A, V)**

Use to scroll through selections during data registration.

- **Cursor buttons (<, >)**

Use to move the cursor during data registration.

- **SPACE button**

Press to enter a space between numbers or letters when you register facsimile numbers and names.

- **CLEAR button**

Press during data registration to clear a number or name.

- **TONE/+ button**

Press to use tone dialling, even if your fax is connected through a pulse dial telephone. Press also to enter a + in your facsimile number.

- **PAUSE button**

Press to enter pauses between digits when dialling or registering facsimile numbers.

- **D.T. button**

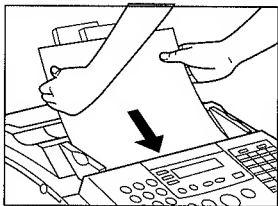
Press to confirm the dial tone when dialling a telephone number.

MANUAL SENDING

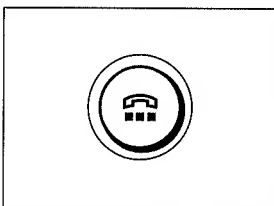
Manual Sending dials the number, makes the connection, and sends the fax immediately. It also lets you talk to the other party before sending the document. This is useful when the other party uses a single phone line for both voice and fax transmissions. You must use the handset for Manual Sending.

1 Regular Dialling

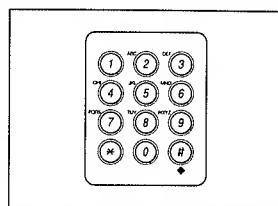
(3-6...3-7)



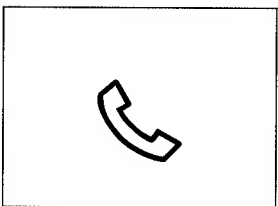
- 1 Feed the document face-down into the Automatic Document Feeder (ADF).



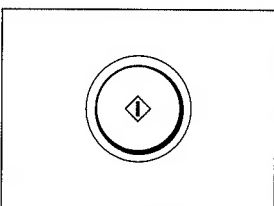
- 2 Press HOOK.



- 3 Dial the fax number you're sending to. Use the numeric buttons to enter the number.



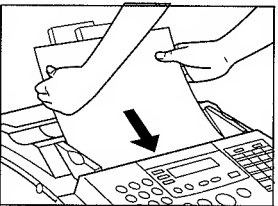
- 4 When you hear the other party answer, pick up the handset and tell them to get ready to receive a fax by pressing the start button on their fax machine. (You will hear a fax sound over the handset when they do this.)



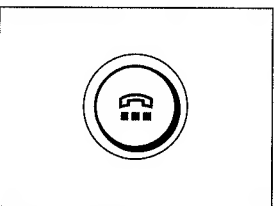
- 5 Press START/COPY and hang up. The fax begins sending your document.

2 Using One-touch Speed Dialling

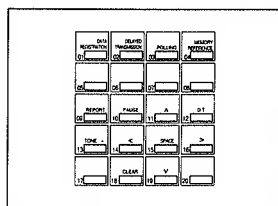
(5-4)



- 1 Feed the document face-down into the Automatic Document Feeder (ADF).

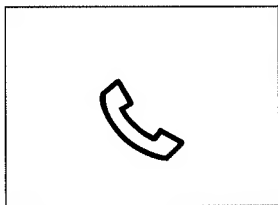


- 2 Press HOOK.

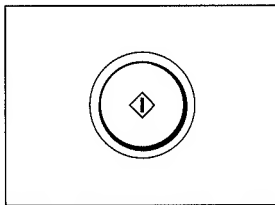


- 3 Press the One-touch Speed dialling button assigned to the number to which you wish to fax.

The numbers in parentheses indicate the pages in the Canon FAX-L300 User's Guide on which you can find further details.

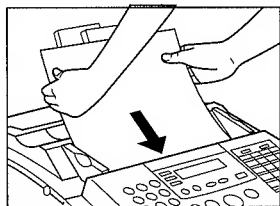


4 When you hear the other party answer, pick up the handset and tell them to get ready to receive a fax by pressing the start button on their fax machine. (You will hear a fax sound over the handset when they do this.)

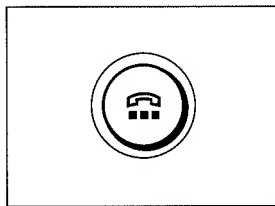


5 Press **START/COPY** and hang up. The fax begins sending your document.

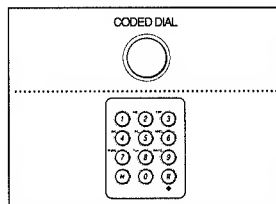
3 Using Coded Speed Dialling (5-7)



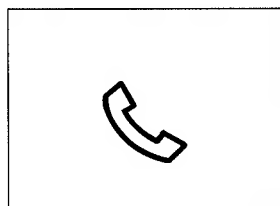
1 Feed the document face-down into the Automatic Document Feeder (ADF).



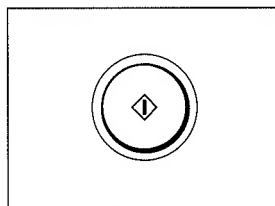
2 Press **HOOK**.



3 Press **CODED DIAL** and use the numeric buttons to enter the desired two-digit code (00-99).



4 When you hear the other party answer, pick up the handset and tell them to get ready to receive a fax by pressing the start button on their fax machine. (You will hear a fax sound over the handset when they do this.)

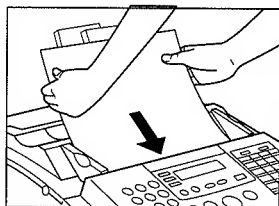


5 Press **START/COPY** and hang up. The fax begins sending your document.

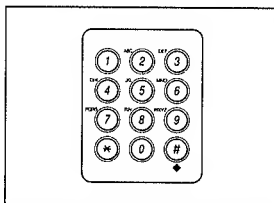
MEMORY SENDING

Memory Sending scans your document into the fax's memory. Memory Sending allows you to load faxes into memory while the fax performs other tasks, such as transmitting a fax. It also lets you send to numbers that are often busy (it automatically redials), or to send to more than one fax number.

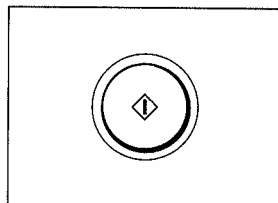
1 Regular Dialling (3-6...3-7)



1 Feed the document face-down into the Automatic Document Feeder (ADF).

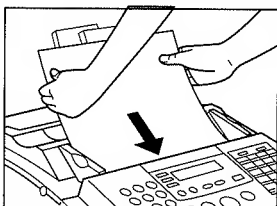


2 Dial the fax number you're sending to. Use the numeric buttons to enter the number.

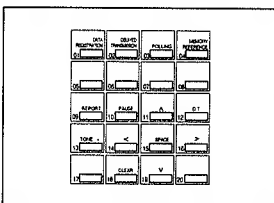


3 Press START/COPY.
The fax scans the document into memory and begins sending.

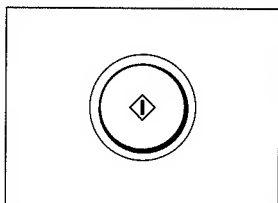
2 Using One-touch Speed Dialling (5-4)



1 Feed the document face-down into the Automatic Document Feeder (ADF).



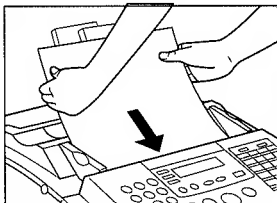
2 Press the One-touch Speed dialling button assigned to the number to which you wish to fax.



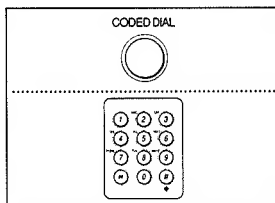
3 Press START/COPY.
The fax scans the document into memory and begins sending.
(The transmission starts after 10 seconds even if you don't press START/COPY).

The numbers in parentheses indicate the pages in the Canon FAX-L300 User's Guide on which you can find further details.

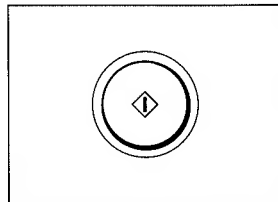
3 Using Coded Speed Dialling (5-7)



- 1** Feed the document face-down into the Automatic Document Feeder (ADF).

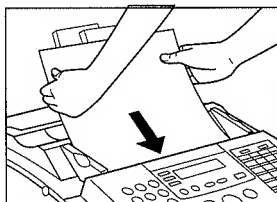


- 2** Press CODED DIAL and use the numeric buttons to enter the desired two-digit code (00-99).

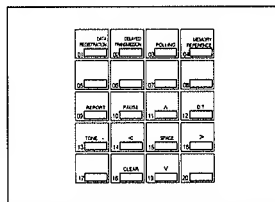


- 3** Press START/COPY. The fax scans the document into memory and begins sending. (The transmission starts after 10 seconds even if you don't press START/COPY).

4 Sending to More than One Location (5-16)

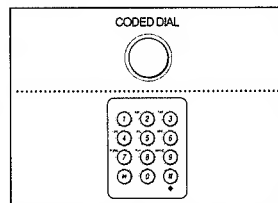


- 1** Feed the document face-down into the Automatic Document Feeder (ADF).

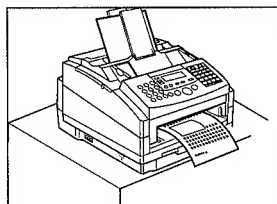


- 2a** Press the appropriate One-touch Speed dialling buttons. Simply dial the numbers one after the other.

OR



- 2b** Press CODED DIAL and use the numeric buttons to enter the appropriate two-digit codes. Make sure you press CODED DIAL before you enter each code.



- 3** The fax scans the document into memory and begins sending approximately 10 seconds after you pressed the last button.

REDIALLING

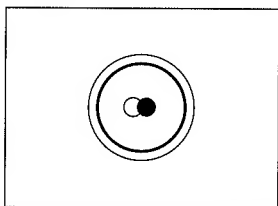
1 Automatic Redialling (in Memory Sending) _____ (3-10)


If the line is busy or there is no answer, the fax waits two minutes and then dials the same number. When the fax is waiting to redial, the following messages are displayed.

23/07 *95 FRI 12:34
AUTO REDIAL

23/07 *95 FRI 12:34
TX/RX NO. 0040

2 Manual Redialling _____ (3-10)



To redial the last number
dialled with the numeric
buttons, press  (REDIAL).

RECEIVING DOCUMENTS

1 Automatic Receiving _____ (4-2...4-3)

The fax is set for Automatic Receiving by pressing the button below the ANS HOOK UP and MANUAL indicator lamps: both lamps must be OFF.

1a Fax-only Receiving – AUTO RX

Fax-only Receiving answers all calls, but accepts only those from fax machines and disconnects all others. (This is the default setting.)

1b Fax/Telephone Auto-switch Receiving – FAX/TEL AUTO SWITCH

Use Fax/Telephone Auto-switch Receiving when you have a combined fax/telephone line. If the call is from a fax, your fax receives the document transmission without ringing. If the call is from a telephone, your fax rings to alert you to pick up the handset to answer the call.

The numbers in parentheses indicate the pages in the Canon FAX-L300 User's Guide on which you can find further details.

2 Manual Receiving _____ (4-8)

The fax is set for Manual Receiving by pressing the button below the MANUAL indicator lamp: the MANUAL lamp must be ON.

For Manual Receiving, you need to have the optional handset installed or an extension telephone connected.

The fax rings every time it receives a call, whether the call is from a telephone or a fax machine.

Pick up the handset, when the phone rings. Press **START/COPY** (when using the handset) or enter **25** (when using the extension phone) to start receiving the fax. Place the handset in its cradle. The fax machine starts receiving.

3 Receiving Documents in Memory _____ (4-11)

When the fax unit is receiving a fax, it automatically stores unprinted pages in memory if:

- the fax runs out of paper.
- the fax runs out of toner.
- there is no toner cartridge installed.
- the paper size specified in the FAX PRINTER SETUP is different to the paper size in the paper cassette.
- a paper jam has occurred.
- the message OUTPUT TRAY FULL is displayed.

The fax displays the following messages telling you which of the above has occurred:

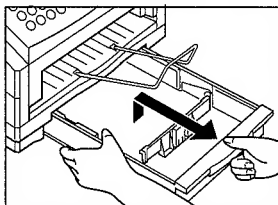
SUPPLY REC. PAPER
REPLACE CARTRIDGE
INSTALL CARTRIDGE
CHECK PAPER SIZE
REC. PAPER JAM

Once you have solved the problem indicated by the error message above, the fax will automatically print the unprinted pages stored in memory.

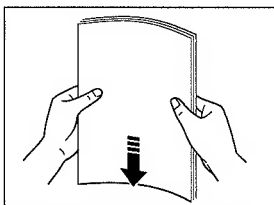
LOADING PAPER

1 Loading Paper _____ (2-22...2-25)

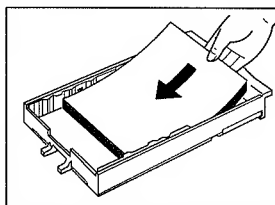
When the message SUPPLY REC.PAPER appears in the display, you need to add paper to the paper cassette.



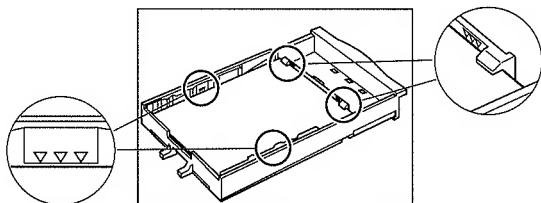
- 1 Lift the paper cassette slightly and pull it out.



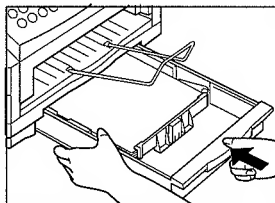
- 2 Before loading the paper, stack it so that the leading edge and the sides of the paper are even.



- 3 Load the stack of paper into the paper cassette.



- 4 Make sure the stack is not higher than the limit marks ▼▼▼ on the sides of the cassette, and is under the tabs on the paper selector.

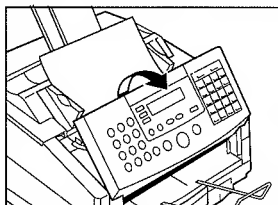


- 5 Gently insert the paper cassette into the fax until it clicks into position.

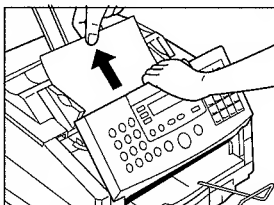
CLEARING DOCUMENT AND PAPER JAMS

1 Clearing Document Jams _____ (8-2)

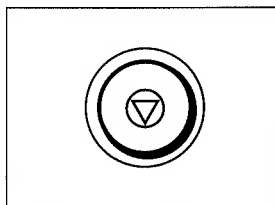
If CHECK DOCUMENT is displayed, then remove the document as described.



- 1 Lift and open the operation panel.



- 2 With the operation panel open, remove the document by pulling it up.



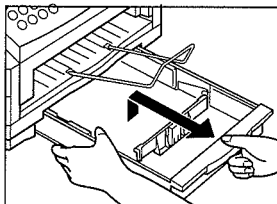
- 3 Close the operation panel by pressing it down from the centre. Press STOP.

The numbers in parentheses indicate the pages in the Canon FAX-L300 User's Guide on which you can find further details.

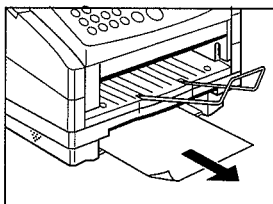
2 Clearing Recording Paper Jams _____ (8-3...8-8)

If REC.PAPER JAM is displayed, then clear the fax paper jam as described.

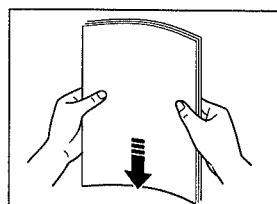
2a Paper Jams in the Cassette Area



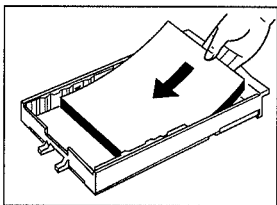
1 Remove the paper cassette.



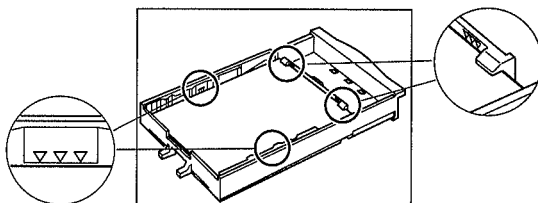
2 If there is any jammed paper inside the fax, gently pull it out of the unit being very careful not to tear it.



3 Remove the stack of paper from the cassette. Fan the paper and tap it on a flat surface to even out the stack.



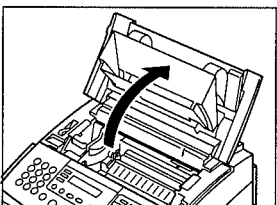
4 Reinsert the stack into the cassette.



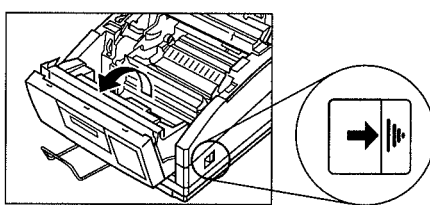
5 Make sure the stack is not higher than the limit marks ▼▼▼ and that it fits under the tabs on the paper selector. Replace the paper cassette.

If the error message REC. PAPER JAM remains displayed, there may be more jammed paper in other areas. Check the other areas as described below.

2b Paper Jams inside the Fax



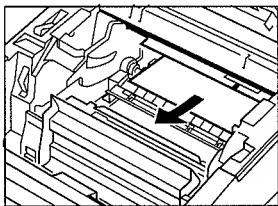
6 Open the printer door by grasping it on both sides and lifting it up. Remove the toner cartridge from the fax.



7 Use the front cover release latch to open the front cover.

Do not open the front cover without pushing the release latch, as this may cause damage to your fax.

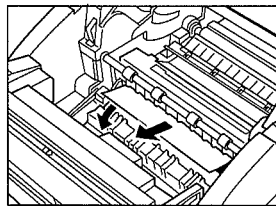
The numbers in parentheses indicate the pages in the Canon FAX-L300 User's Guide on which you can find further details.



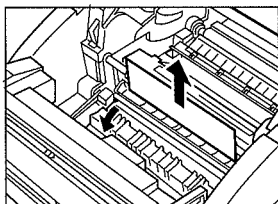
- 8** Check where the paper is jammed. If the leading edge of the jammed paper is visible, gently pull it out.



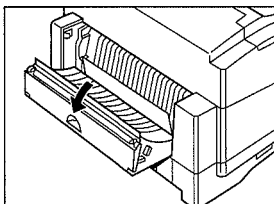
- 9** The toner is not yet fixed to the paper in this area; take care not to dirty yourself or the inside of the fax.



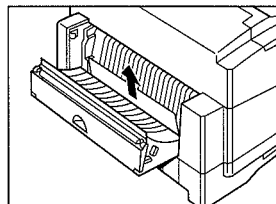
- 10** Lower the plastic cover and gently remove any jammed paper from the unit by pulling it *forward*.



- 11** If necessary, gently pull the paper *upwards* to remove it from the fax.



- 12** Open the rear cover.

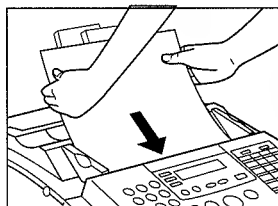


- 13** Gently pull out any jammed paper from the rear area. Close the rear cover, replace the toner cartridge, and close the printer door and front cover.

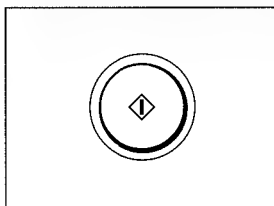
MAKING COPIES

1 Making Copies

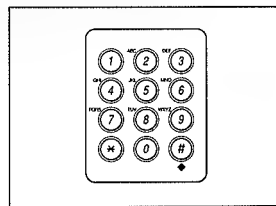
(5-24)



- 1** Feed the document face-down into the Automatic Document Feeder (ADF).



- 2** Press START/COPY.



- 3** If you want more than one copy, use the numeric buttons to enter the number of copies you want (up to 99). Press START/COPY.

The numbers in parentheses indicate the pages in the Canon FAX-L300 User's Guide on which you can find further details.

**Read
Me
First**

Canon

FAX-L300

Installation Guide

ZZK-H300A610-V2.0-1199
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Printed in The Netherlands
8375AX4

ENGLISH

This guide lists the sections of the FAX-L300 User's Guide you will need to set up the facsimile and get ready to use it. The numbers in parentheses indicate the pages in the User's Guide on which you can find detailed instructions.

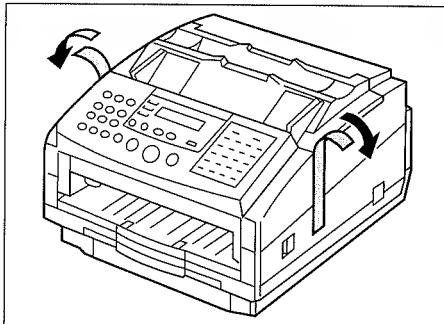
- ☐ Unpacking Your Fax* (2-4~2-6)
- ☐ Assembling Your Fax* (2-7)
- ☐ Controls, Components, and Connections* (2-8~2-16)
- ☐ The Toner Cartridge* (2-17~2-21)
- ☐ Loading Recording Paper* (2-22~2-25)
- ☐ Storing Information in the Fax* (2-29~2-36)
- ☐ Three Ways to Receive a Fax (4-2~4-13)
- ☐ Speed Dialling (5-2~5-10)

* Marked procedures are included in this guide for your convenience.

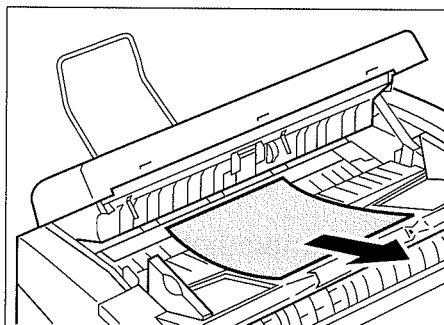
Unpacking Your Fax

Before setting up your fax, be sure to remove all shipping materials as described below:

- 1 Remove the shipping tapes from the printer door.



- 2 Remove the protective sheet from inside the operation panel.

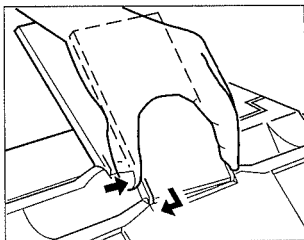


Assembling Your Fax

Attach the following parts to your fax as explained below:

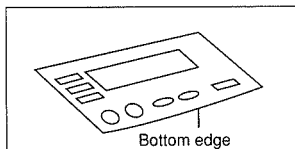
Output Tray and Document Support for ADF

Insert one tab first into the slot, then the other tab into the other slot. Make sure that the output tray and document support for ADF rest back.



Local-Language Label*

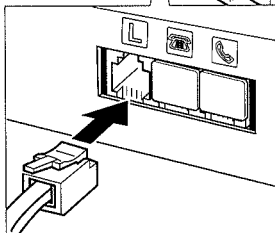
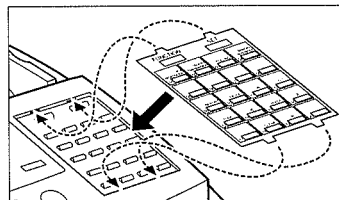
Peel the protective sheet from the self-adhesive operation panel label, carefully align it and attach it, bottom edge first, in the position shown.




* Available for a limited number of languages.

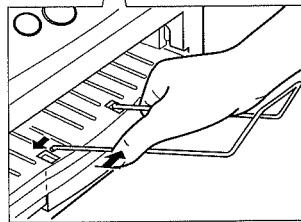
One-Touch Faceplate

Fit the tabs on the one-touch faceplate into the slots on the fax.



Telephone Line

Connect the telephone line to the input jack marked .




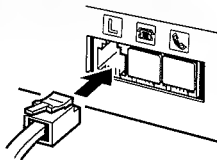
Document Support for Scanned Documents


Insert the ends of the document support into the slots on the fax.

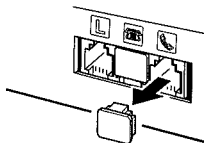
See Appendix C "Options" of the FAX-L300 User's Guide for attaching the optional handset.


Making Connections

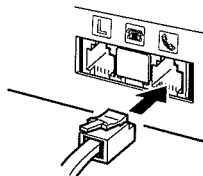
- 1** Connect the telephone line to the fax jack marked .




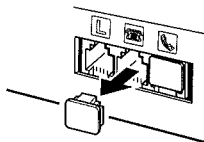
- 2** If you wish to connect a telephone or optional handset to the fax, remove the cover of the jack marked .




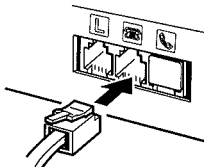
- 3** Connect the end of the telephone or optional handset cord to the jack marked .



- 4** To connect an extension phone or answering machine to the fax, remove the cover of the jack marked .

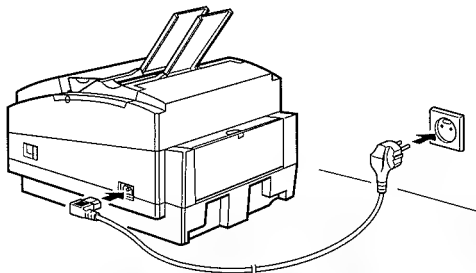


- 5** Connect the end of the extension phone or answering machine cord to the jack marked .



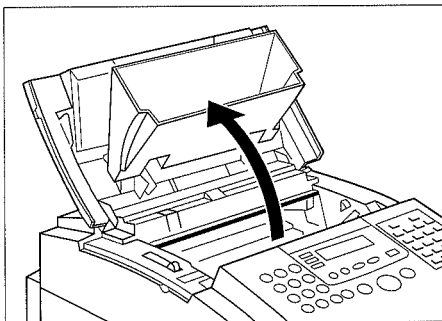
Powering Up

- 1 To connect the power cord, plug the cord into the power receptacle on the fax, and then into a 200–240 V AC power outlet.
 - The fax has no power switch, so its power is on as soon as you plug it in. Once powered up, though, the unit still needs to warm up before you can use it.



Installing the Toner Cartridge

- 1 Remove any documents or printed pages from the fax.
- 2 Make sure the unit is plugged in.
- 3 Open the printer door by grasping it at both sides and lifting it up.

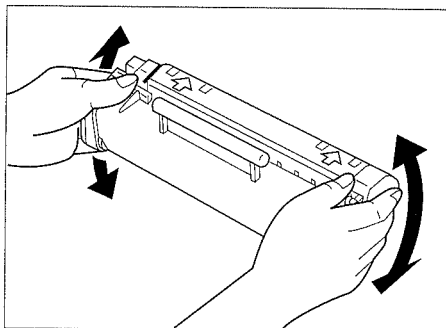


- 4 Remove a new toner cartridge from its protective bag.
 - Save the protective bag. You may need to repack and transport it in the future.

5

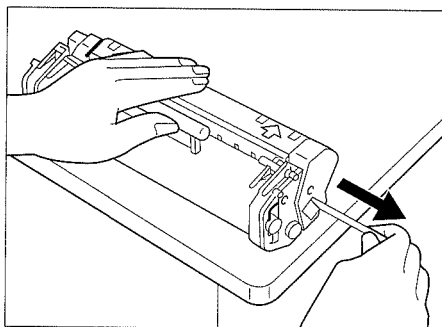
Gently rock the cartridge from side to side five or six times.

- This evenly distributes the toner inside.

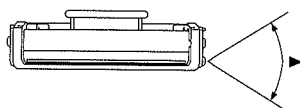
**6**

Place the cartridge on a flat, clean surface, and steady it with one hand. Then remove the seal by gently pulling on the plastic tab with your other hand.

- Use a firm, even pull to remove the plastic seal. To avoid breaking the seal, do not jerk on it unevenly.

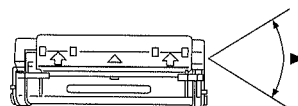


Side view



Pull in this direction

Top view

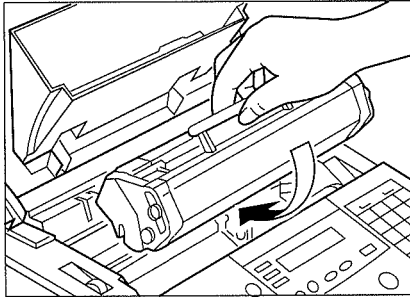


Pull in this direction

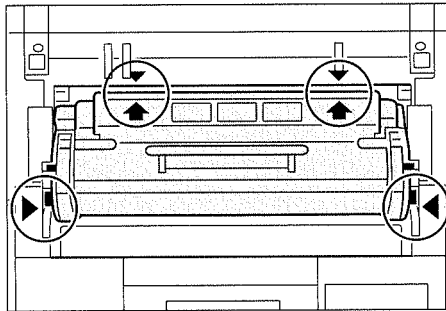
7

Hold the cartridge by its handle and insert as follows:

- Make sure the round large tabs on the sides of the cartridge are aligned with the arrow marks (▶, ◀) on the printer.



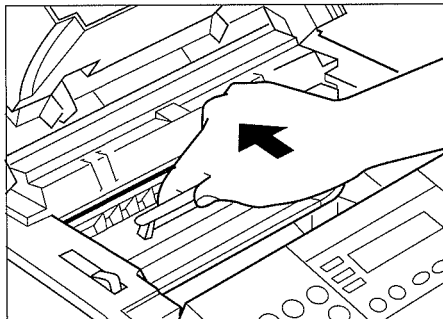
- Align the arrow marks on the cartridge (↗) with the arrow marks on the inside of the fax (▼).



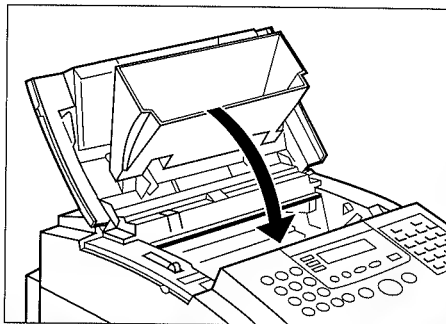
8

Gently slide the cartridge down and back and *push firmly until it clicks into position.*

- Make sure the cartridge is set all the way into the unit. Otherwise the fax won't operate properly.

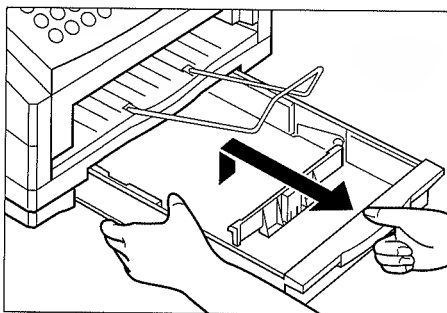


- 9** Gently close the printer door.

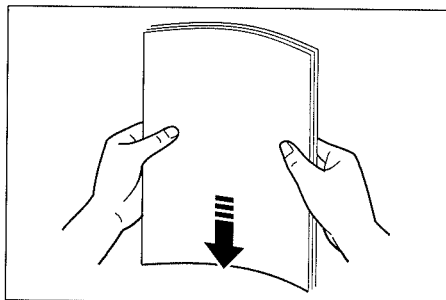


Loading Recording Paper

- 1** Lift the paper cassette slightly and pull it out.

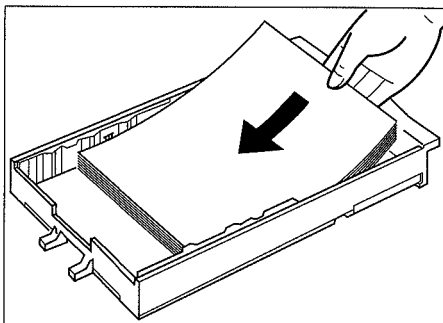


- 2** Before loading the paper, stack it so that the leading edge and sides of the paper are even.

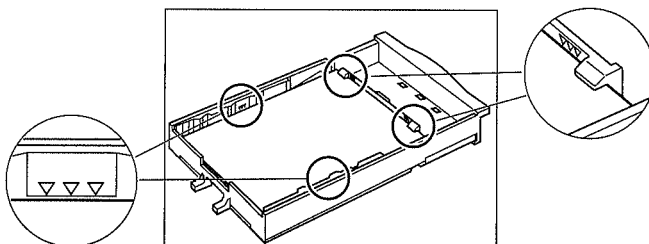


3

Load the stack of paper into the paper cassette.



- Make sure the paper stack is not higher than the limit marks (▼▼▼) on the sides of the cassette, and is under the tabs on the paper selector.

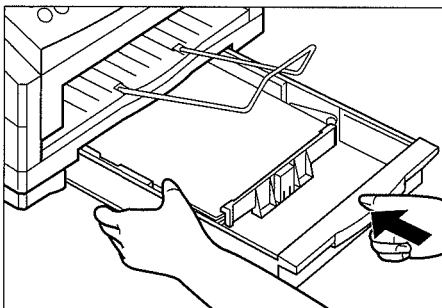


- Check all corners and edges of the paper stack to be sure they are flat and even.
- The cassette can hold about 250 sheets of paper (standard paper).

4








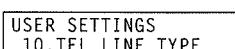



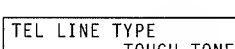


Gently insert the paper cassette into the fax until it clicks into position.

- If the paper cassette is not installed correctly, the received document image might shift, or the recording paper might jam.











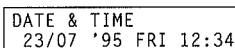


Setting the Telephone Line Type

Your fax is factory set to work with rotary pulse telephone lines. If you have a touch tone line, you will need to change the telephone line setting. Follow the procedure below:

ACTION	DISPLAY
1    	
2 Use the search buttons to display 10. TEL LINE TYPE.  	
3 Press SET , then use the search buttons to select TOUCH TONE.   	
4 Press SET to save your selection, and press STOP to return to standby mode.  	

Entering the Date and Time

Follow the steps below to set the date and time for your fax. The date and time appear on the documents you send as well as in the display.

ACTION	DISPLAY
1    	
2 Press SET and use the numeric buttons to enter the correct date and time. Use the 24-hour system for the time (5:20 p.m. would be 17:20, for example).   Ex: 	
3 Press SET to save the date and time, then press STOP to return to standby mode.  	

Guidelines for Registering Information

Use the numeric buttons to enter numbers, letters, and symbols.

Button	Uppercase	Lowercase
1		
2	ABCĀĂĄĖĄĖÇ	abcăăăăăăç
3	DEFĐĖĖĖĖ	defđėėėė
4	GHIĦĦĦĦ	ghiĥĥĥĥ
5	JKL	jkl
6	MNOŃŃŃŃŃŃ	mnońŃŃŃŃŃŃ
7	PQRS ꞑ	pqrs ꞑ
8	TUVŮŮŮŮ	tuvůůůů
9	WXYZŸ	wxyzý
0		
*	<div> <div>→ Uppercase →</div> <div>→ Lowercase →</div> <div>→ Number →</div> </div>	
#	- . * # ! " , ; : ^ ` _ = / ' ? \$ @ % & + () [] { } < >	







Each button contains a letter group; an upper case set, followed by a lower case set of characters. Every time you press, the character changes to the next one in the group.

Follow these guidelines when you enter information into the fax:

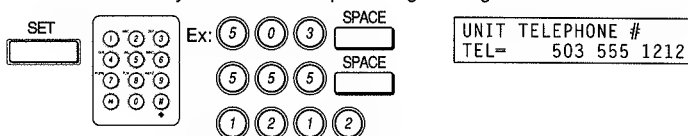
- If you pause and do not make an entry for more than 60 seconds, the fax returns to standby mode. You will then have to start entering the information all over again.
- If you make a mistake while making an entry, you can press **CLEAR** and repeat the entry, or press **⏏ (STOP)** and start again.

Registering Your Fax Number and Name

Follow the steps below so that your fax number and name appear on the top of each document you send.

	ACTION	DISPLAY
1	<div> <div>FUNCTION </div> <div>DATA REGISTRATION </div> <div>V </div> <div>SET </div> </div>	<div>USER SETTINGS</div> <div>1.DATE & TIME</div>
2	<div> <div>^ </div> <div>V </div> </div>	<div>USER SETTINGS</div> <div>2.UNIT TELEPHONE #</div>

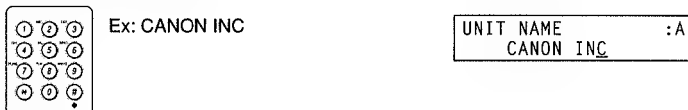
- 3** Press **SET** and enter your fax number—up to 20 digits—using the numeric buttons.



- 4** Press **SET** to save the fax number, then press **SET** again to display 3. UNIT NAME.



- 5** Enter your name or your company name—up to 24 characters—using the numeric buttons.

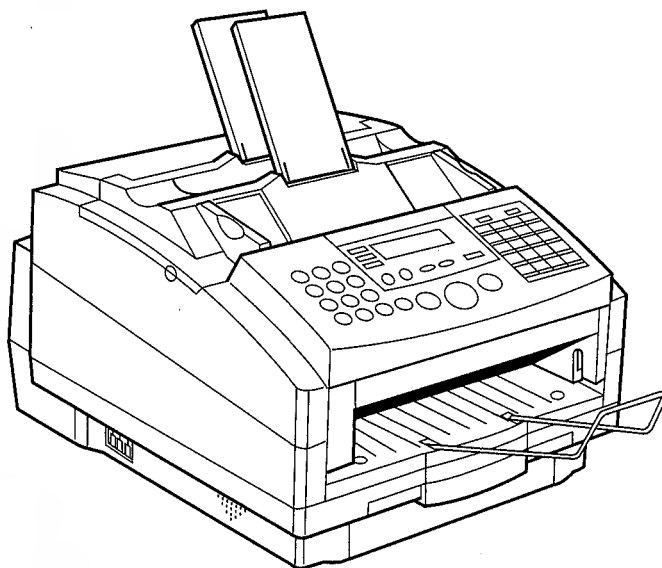


- 6** Press **SET** to save the name, then press **STOP** to return to standby mode.



Canon FAX-L300

User's Guide



Canon
FAX-L300

User's Guide

Although this equipment can use either loop disconnect or DTMF signalling, only the performance of the DTMF signalling is subject to regulatory requirements for correct operation. It is therefore strongly recommended that the equipment is set to use DTMF signalling for access to public or private emergency services. DTMF signalling also provides faster call set up. {UK}

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As an Energy Star Partner, Canon has determined that the FAX-L300 meets the Energy Star guidelines for energy efficiency.

TO BE PROVIDED BY CANON UK.

NOTICE FOR CONNECTION TO TELECOMMUNICATION SYSTEMS IN THE UNITED KINGDOM

1. BABT Certificate Number/Approval Number for the Canon FAX-L300:

NS/1056/3/R/604543

APPROVED for connection to telecommunication systems specified in the instructions for use subject to the conditions set out in them.

2. This apparatus has been approved for the use of the following facilities.

1. Storage of telephone numbers for retrieval by a predetermined code. (If problems occur, verify stored number).
2. Automatic call initiation.
3. Operation in the presence or absence of initial or secondary proceed indication.
4. Automatic dialling facilities.
5. Automatic storage of last number dialled.
6. Automatic repeat attempt facilities.
7. Auto clear from the call originating end.
8. Series connection facility.
9. Modem
10. Automatic answer.
11. Automatic selection of incoming facsimile or telephone calls.

Any other usage will invalidate the approval of the apparatus if as a result, it then ceases to conform to the standards against which approval was granted.

3. This apparatus may be used on telecommunication systems employing loop disconnect or MF signalling.
4. This apparatus is suitable for connection only to direct exchange lines on the PSTN directly or via a compatible PABX. The supplier of the apparatus should be consulted for an up to date list of PABXs with which the apparatus is compatible.

It cannot be guaranteed that the apparatus will operate under all possible conditions of connection to compatible PABX. Any cases of difficulty should be referred in the first instance to the supplier of the apparatus.

5. Ringer Equivalence Number (REN) = 1

The REN is a customer guide indicating approximately the maximum number of items of apparatus that should be connected simultaneously to the line. Correct operation cannot be guaranteed in installations with mixed types of apparatus.

The sum of the REN's of the individual items should not exceed 4. The REN value of a BT telephone is assumed to be 1 unless otherwise marked.

Any telephones or other approved terminal must be connected to the appropriate socket on the facsimile apparatus only.

6. The series connection facility detects the off-hook condition of any associated terminal. The voltage drop introduced by the apparatus between the PSTN and the associated terminal at a current of 40 mA is 750 millivolts.

The apparatus should not be used in conjunction with other series connected apparatus such that the aggregate declared voltage drops of all the apparatus, together with the voltage drop introduced at 40 mA by any separate wiring that is used to link apparatus, exceeds 2.0 Volts.

Only one FAX-L300 may be connected between other terminal apparatus and the telephone network.



This CE Marking shows compliance of this equipment with Directive 73/23/EEC and Directive 89/336/EEC (as amended by Directive 92/31/EEC), both as amended by Directive 93/68/EEC.

L'estampille CE indique que ce matériel est conforme aux dispositions de la Directive 73/23/CEE et de la Directive 89/336/CEE (modifiée par la Directive 92/31/CEE), toutes deux modifiées par la Directive 93/68/CEE.

Diese CE-Markierung weist darauf hin, daß dieses Gerät mit Richtlinie 73/23/EWG und der durch Richtlinie 92/31/EWG geänderten Richtlinie 89/336/EWG übereinstimmt, die beide durch Richtlinie 93/68/EWG geändert wurden.

Denne CE-mærkning indikerer, at dette udstyr følger Direktiv 73/23/EU og Direktiv 89/336/EU (som udvidet med Direktiv 92/31/EU), begge som udvidet med Direktiv 93/68/EU.

CE Märkningen visar att denna utrustning följer direktiven 73/23/EEC och 89/336/EEC (komplement till 92/31/EEC) båda som komplement till direktiv 93/68/EEC.

CE merkintä osoittaa tämän tuotteen yhteensopivuuden direktiivien 73/23/EEC ja 89/336/EEC (täydennetty direktiivillä 92/31/EEC) kanssa, joita on täydennetty direktiivillä 93/68/EEC.

Dette CE merket viser at utstyret er i samsvar med EU direktivene 73/23 og 89/336 (med korreksjon av EU direktiv 92/31), begge med korreksjon av EU direktiv 93/68.

Deze CE markering toont aan dat het product in overeenstemming is met de richtlijnen 73/23/EEC en 89/336/EEC (zoals geammenteerd door richtlijn 92/31/EEC), welke beide zijn geammenteerd door de richtlijn 93/68/CEE.

Questo contrassegno CE indica che l'apparecchio è conforme alle Direttive CEE 73/23 e 89/336 (successivamente modificata con la Direttiva 92/31), entrambe modificate con la Direttiva 93/68.

Este símbolo CE indica que el equipo cumple con las Directivas 73/23/EEC y 89/336/EEC (según la enmienda a la Directiva 92/31/EEC), ambas según la enmienda de la Directiva 93/68/EEC.

Esta marca CEE indica que este equipamento está de acordo com as Directivas 73/23/EEC e 89/336/EEC (conforme emenda da directiva 92/31/EEC), ambas emendas da directiva 93/68/EEC.

Αυτή η CE σήμανση δηλώνει την συμφωνία της Συσκευής με την Οδηγία 73/23/EEC και την Οδηγία 89/336/EEC (όπως τροποποιήθηκαν από την Οδηγία 92/31/EEC), όπως αμφότερες έχουν τροποποιηθεί από την Οδηγία 93/68/EEC.

Oznaka CE prikazuje, da oprema ustreza predpisu 73/23/EEC, in kot to predpisuje predpis 93/68/EEC.

A CE jelzés tanúsítja, hogy a berendezés megfelel az EEC 92/31 és 93/68 előírásokkal módosított EEC 73/23 és 89/336 követelményrendszernek.

Oznaczenie CE jest potwierdzeniem zgodności niniejszego urządzenia z wymaganiami Dyrektywy 73/23/EEC oraz Dyrektywy 89/336/EEC (zgodnie ze zmianami Dyrektywy 92/31/EEC), obie uzupełnione przez Dyrektywę 93/68/EEC.

Značka CE indikuje, že toto zařízení odpovídá Směrnici 73/23/EEC a Směrnici 89/336/EEC (doplněné Směrnici 92/31/EEC), které byly dále doplněny Směrnici 93/68/EEC.

Käesolev CE-markeerung näitab, et antud seade vastab Euroopa Liidu Direktiividele 73/23/EEC ja 89/336/EEC (koos muudatustega vastavalt Direktiivile 92/31/EEC) ning võttes arvesse, et mõlemad direktiivi on muudetud vastavalt Direktiivile 93/68/EEC.

CE marķējums norāda, ka šī iekārta atbilst prasībām, kas iekļautas EK direktīvās 73/23 un 89/336 (ar EK direktīvā 92/31 paredzētajām izmaiņām), kuras veikti labojumi saskaņā ar EK direktīvu 93/68.

Ženklas CE reiškia, kad šis įrenginys atitinka direktyvas 73/23/EEC ir 89/336/EEC (atlikus patalysas direktyva 92/31/EEC), kuriose buvo atliktos patalysos direktyva 93/68/EEC.

Маркировка CE указывает на то, что данное оборудование соответствует Директиве 73/23/EEC и Директиве 89/336/EEC (с изменениями в соответствии с Директивой 92/31/EEC) с изменениями, предписываемыми Директивой 93/68/EEC.

Маркуванням CE вказує на те, що дане обладнання відповідає Директивам МЕК 73/23/EEC і 89/336/EEC (із змінами у відповідності до Директиви 92/31/EEC) із змінами, що диктуються Директивою 93/68/EEC.

Fax IV

Safety Information



Use of controls, adjustments or performance of procedures other than those specified in this user's guide may result in hazardous radiation exposure.

This label is attached to the laser scanner unit inside the fax and is not in a user access area.

	DANGER - Invisible laser radiation when open. AVOID DIRECT EXPOSURE TO BEAM.
	CAUTION - INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM.
	ATTENTION - RAYONNEMENT LASER INVISIBLE EN CAS D'OUVERTURE. EXPOSITION DANGEREUSE AU FAISCEAU.
	VORSICHT - UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.
	ATTENZIONE - RADIAZIONE LASER INVISIBILE IN CASO DI APERTURA. EVITARE L'ESPOSIZIONE AL FASCIO.
	PRECAUTION - RADICION LASER INVISIBLE CUANDO SE ABRE. EVITAR EXPONERSE AL RAYO.
	VARO! - AAVATTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
	VARNING! - OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. BETRAKTA EJ STRÅLEN.
	ADVARSEL! - USYNLIG LASER STRÅLING, NÄR DENNE ER ÅBEN. UNDGÅ BESTRÅLING.
	ADVARSEL - USYNLIG LASERSTRÅLING, NÄR DEKSEL ÅPNES. UNNGÅ EKSPONERING FOR STRÅLEN.
注意	-このカバーの内側では不可視レーザー光が放射されています。 レーザー光にさらされないようにしてください。 RSS-8169

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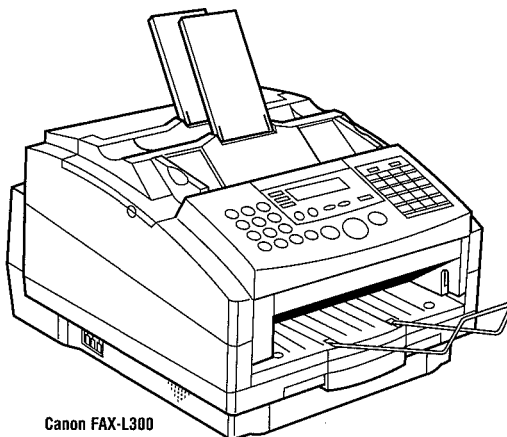
Part

1

This chapter introduces you to your fax. It also explains how to get the most from the documents that come with the FAX-L300, and gives important safety instructions.

Features of the Canon FAX-L300

Thank you for purchasing the new Canon FAX-L300 Facsimile Machine. The FAX-L300 is a G3 facsimile unit that allows you to send your documents in the shortest time possible at high speed. To gain the most benefit from all the new features, be sure to refer to this manual when you are not sure how to perform a task. The FAX-L300 will help you work more efficiently and expand your work capacity.



Canon FAX-L300

The FAX-L300 includes the following features:

■ **Excellent print quality**

Quiet, clean laser technology offers 400 × 400 dpi resolution for text and graphics.

■ **Automatic switching between fax and voice calls**

Fax/telephone switching allows you to receive fax messages and normal phone calls on a single line.

■ **Convenient paper handling**

The paper cassette holds up to 250 sheets of plain A4, letter, or legal paper, and the automatic document feeder (ADF) can hold up to 30 A4-size, letter-size or 20 legal-size pages.

■ **Simple maintenance**

When the toner runs out, simply replace the toner cartridge.

Plain Paper Fax Features

- A transmission speed of six seconds per page*
- A fax memory that can store approximately 42 received pages, and up to 138 received pages with the optional 2 MB memory board installed*
- An Error Correction Mode (ECM) that reduces transmission errors
- Sophisticated networking features such as memory broadcasting, polling reception, restricted receiving and delayed transmission
- Automatic dialling methods, including One-Touch Speed Dialling, Coded Speed Dialling and Group Dialling

Copier Features

- 400 × 400 dpi resolution
- Plain paper copier
- Up to 99 copies

Telephone Features

- Automatic dialling methods, including One-Touch Speed Dialling and Coded Speed Dialling
- Connection for an answering machine or extension telephone
- On-hook dialling
- Optional handset available

* Based on the Canon FAX Standard Chart No.1

How to Use Your Documentation

The fax includes the following documentation to help you use the unit more effectively. Be sure to do the following before you begin setting up your fax:

- Read this chapter to learn about your fax's features, and guidelines for operating your new equipment safely.
- Carefully follow the instructions in Part 2, "Getting Started," to set up your fax properly.
- Use the rest of this user's guide to master your fax's basic operating procedures (such as registering information, making copies, sending and receiving faxes, and using the telephone features), and to learn more about its special features (such as sending to more than one location, and receiving documents in memory). Keep this manual handy so you can refer to it when you have a problem or need particular information about the FAX-L300.
- If you need help getting your fax to operate properly, see Part 8, "Troubleshooting." For the unit's technical specifications, see Appendix B.

If you still have questions about how to use your FAX-L300, feel free to contact your authorised Canon Facsimile Dealer's sales or service representative. They will be glad to answer your questions.

Type Conventions

This manual uses the following type conventions to emphasize information:



Warnings tell you how to avoid actions that could injure you or others nearby.



Cautions tell you how to avoid actions that could damage your equipment.



Notes describe helpful hints, operating restrictions, or how to avoid minor difficulties.

In addition, this manual uses bold capital letters to show the names of buttons and switches on the fax, such as: **SET**, **FUNCTION**, or **STOP**. Text that appears in the unit's display, or the names of lamps, are shown using capital letters, such as: RECEPTION OK.

Customer Support

Your Canon fax is designed with the latest technology to provide trouble-free operation. The warranty information at the back of this manual describes Canon's limited warranty for its products. Be sure to read this warranty information.

If you have a problem with your unit, try first to solve it by referring to the information in Part 8, "Troubleshooting." If you still can not solve the problem, contact your local Canon Facsimile Dealer.

If you think your fax needs service, only an authorised Canon Facsimile Service Dealer will do warranty service.



You must have your sales receipt for warranty service.

Important Safety Instructions

Read these safety instructions thoroughly before using your fax, and refer to them later if you have any questions.

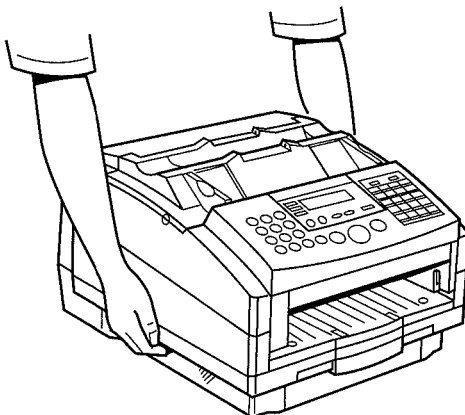


Except as explained in this manual, do not attempt to service your fax yourself. Never attempt to disassemble the unit: exposed power points inside the unit can cause electrical shock if you touch them. Take your fax to your local authorised Canon Facsimile Service Dealer for all service.

- Follow all warnings and instructions marked on the fax.
- Use the fax only on level, solid, stable surfaces.
- The back and bottom of the fax's cabinet include slots and openings for ventilation. To help keep the fax from overheating (which can cause it to operate abnormally), do not block or cover these openings. Do not place the unit on a bed, sofa, rug, or other similar soft surface, or near a radiator or heat register. Also, do not place the fax in a closet, on shelves, or in a similar structure unless properly ventilated.
- Operate the fax only from the type of power source indicated on the unit's label. If you are not sure of the type of power available, consult your dealer or local power company.
- Make sure that the total amperage used by all products plugged into the wall outlet does not exceed the ampere rating of the outlet's circuit breaker.
- Do not allow anything to rest on the power cord, and do not locate the fax where the cord will be walked on. Make sure the power cord is not knotted or kinked.
- Do not use the fax near water or other liquids. If you spill liquid on or into the unit, unplug it immediately and call your local authorised Canon Facsimile Service Dealer.
- Do not allow small objects (such as pins, paper clips, or staples) to fall into the fax. If something does fall into it, unplug the unit immediately and call your local authorised Canon Facsimile Service Dealer.
- Keep your fax away from direct sunlight as this can damage the unit. If you have to place it near a window, install heavy curtains or blinds.
- Avoid a location subject to extreme temperature fluctuation. Use in a room that is within a temperature range of 10° and 32.5°C.

Important Safety Instructions

- Do not insert objects into the openings on the fax's cabinet, as they could touch dangerous voltage points or short out parts, possibly resulting in fire or electric shock.
- After you unplug the fax, wait at least five seconds before you turn it back on.
- Never unplug the fax during printing. This can cause the printing unit to jam.
- Always unplug the fax during thunderstorms.
- Always unplug the fax before moving or cleaning it.
- Before you transport your fax, remove its toner cartridge. When you reinstall the unit in its new location, replace the toner cartridge.
- Never lift the fax by its paper cassette – always hold it by the sides.



Unplug the fax from the wall outlet and refer servicing to your local authorised Canon Facsimile Service Dealer under the following conditions:

- When its power cord or plug is damaged or frayed.
- If liquid has been spilled on or into the unit.
- If you notice smoke or unusual noises or odors coming from it.
- If it does not operate normally when you have followed the operating instructions. Adjust only those controls that are covered by the operating instructions in this manual. Improper adjustment of other controls may result in damage and may require extensive work by a qualified technician to restore the product to normal operation.
- If it has been dropped or the cabinet has been damaged.
- If it begins performing poorly.

Getting Started

Part

2

This chapter tells you how to unpack your Canon FAX-L300 and get it ready to send, receive, and print documents.

Setting Up Your Fax

Choosing a Location for Your Fax

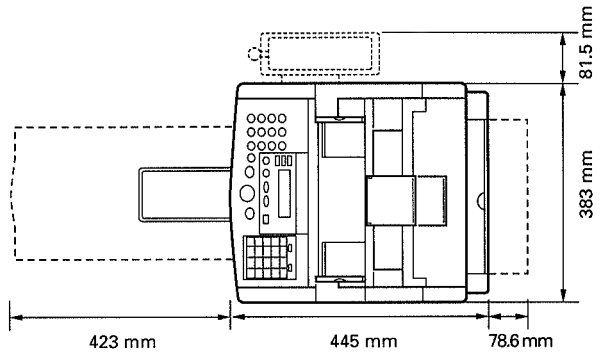
Before unpacking your fax, be sure to follow these guidelines to choose the best location for your fax.

- Choose a cool, dry, clean area:
 - Make sure the area is free from dust.
 - Make sure the area's temperature stays within 10 – 32.5°C.
 - Make sure the area's relative humidity stays within 20% – 80%.
 - Avoid direct sunlight. If you have to place the unit near a window, install heavy curtains or blinds.
- Place the fax near a standard 200–240 V AC power outlet and a telephone line with an RJ11-C wall jack.
- Do not plug the fax into a circuit that is also used by appliances such as air conditioners, electric typewriters, or copiers. Such appliances generate electrical noise that can interfere with faxing documents.
- Set the fax on a flat, sturdy, vibration-free surface.
- Do not set up the fax near a television, radio, or heavy equipment that can generate strong electromagnetic fields.
- Do not use or store the fax outdoors.

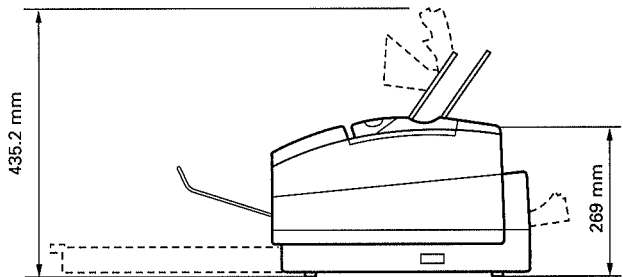
Dimensions

Make sure there is enough room around the fax to allow adequate ventilation, and to allow paper to flow freely into and out of the unit. It requires this much space:

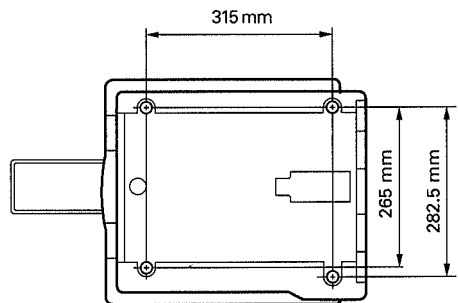
Top view



Side view



Footprint



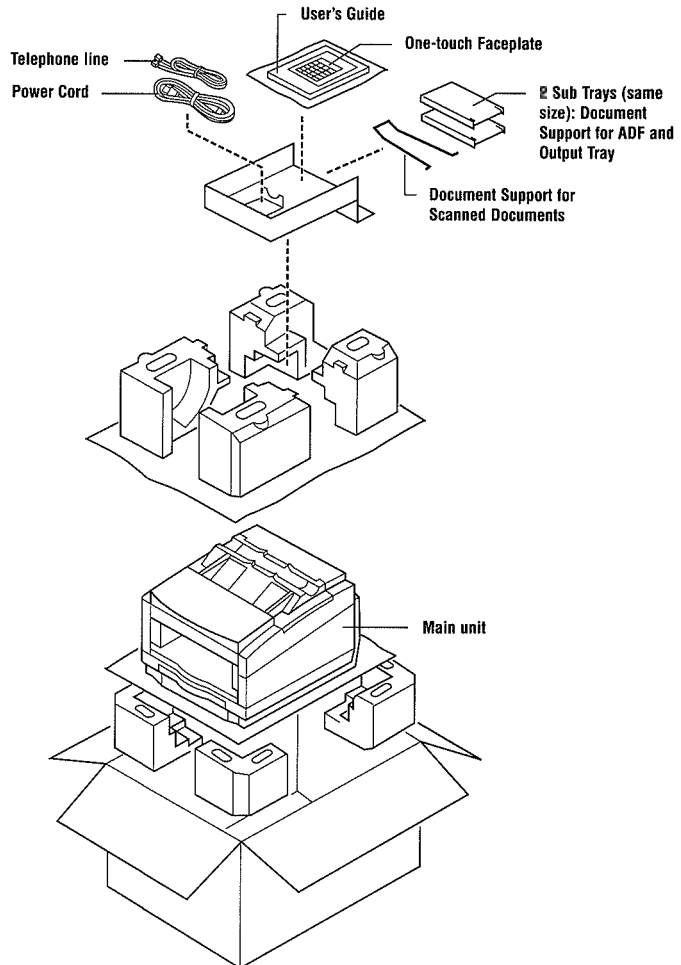
If you need assistance installing your fax, contact your local Canon authorised service representative or your local telephone company.

Do You Have Everything?

As you unpack the fax, save the carton and packing material in case you want to move or ship the unit in the future.

1

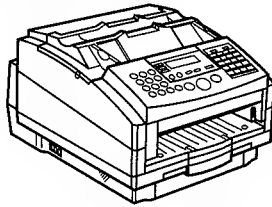
Carefully remove all items from the box. You should have someone help by holding the box while you lift the fax and its protective packaging out of the carton.



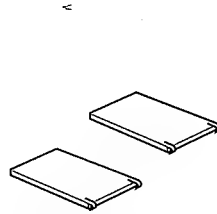
2

Make sure you have the following items:

■ Hardware:



Main FAX-L300 with Paper Cassette



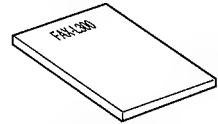
2 Sub Trays (same size)
 • Output Tray
 • Document Support for ADF



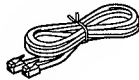
One-touch Faceplate



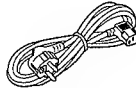
Document Support for
Scanned Documents



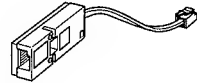
FAX-L300 User's Guide



Telephone Line



Power Cord



B.T. Adaptor (UK Only)

■ Miscellaneous:

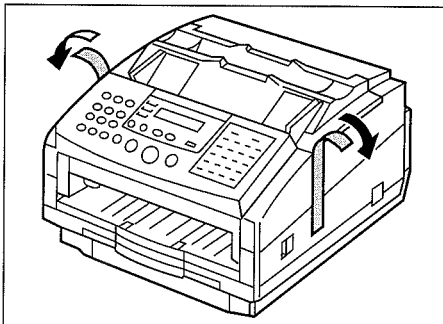
- M label (UK only)

Removing Shipping Materials

Before setting up your fax, be sure to remove all shipping materials as described below:

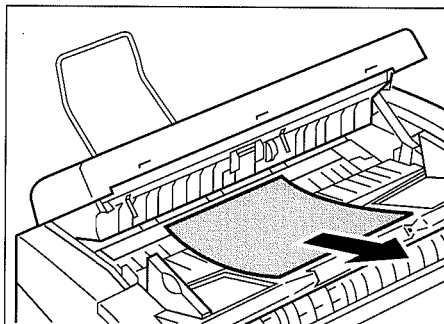
1

Remove the shipping tapes from the printer door.



2

Remove the protective sheet from inside the operation panel.



Replaceable Parts

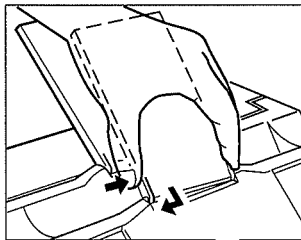
The only component of the fax that should need regular service or replacement is the FX3 toner cartridge.

Assembling Your Fax

Attach the following parts to your fax as explained below:

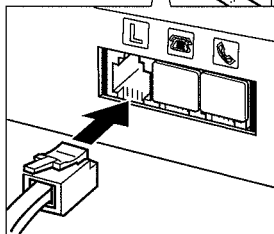
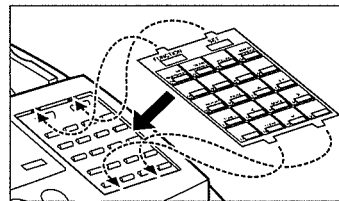
Output Tray and Document Support for ADF

Insert one tab first into the slot, then the other tab into the other slot. Make sure that the output tray and document support for ADF rest back.




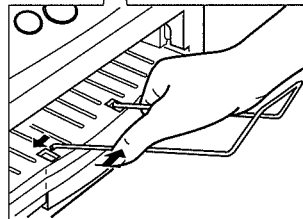
One-Touch Faceplate

Fit the tabs on the one-touch faceplate into the slots on the fax.



Telephone Line

Connect the telephone line to the input jack marked .



Document Support for Scanned Documents

Insert the ends of the document support into the slots on the fax. (→p. 2-26)

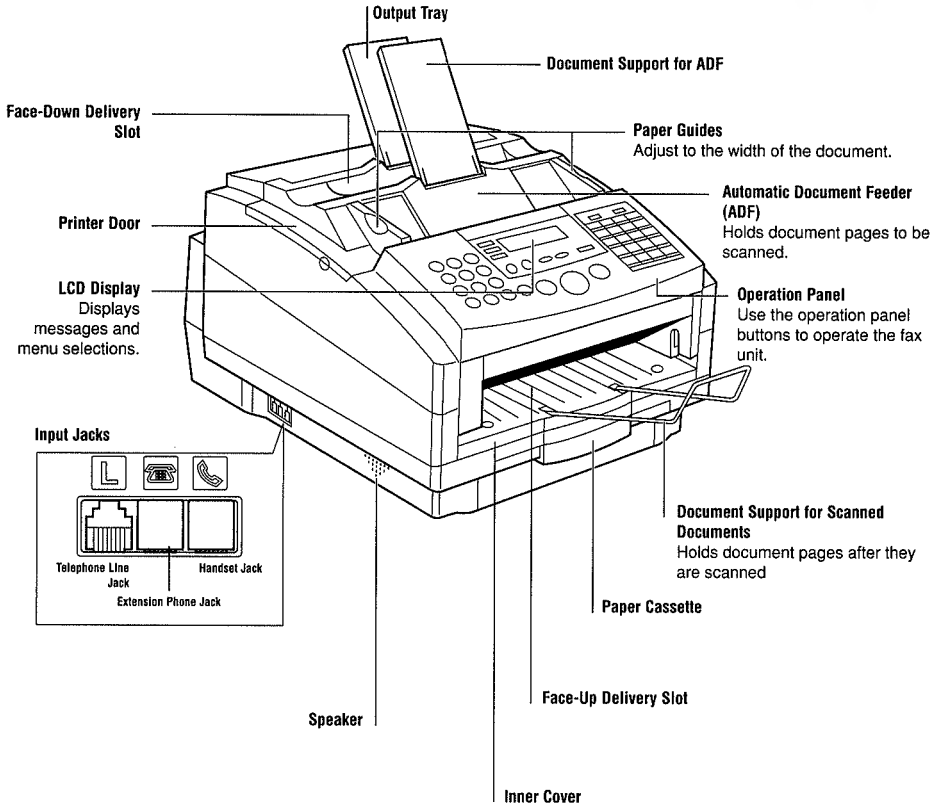


See Appendix C "Options" for attaching the optional handset.

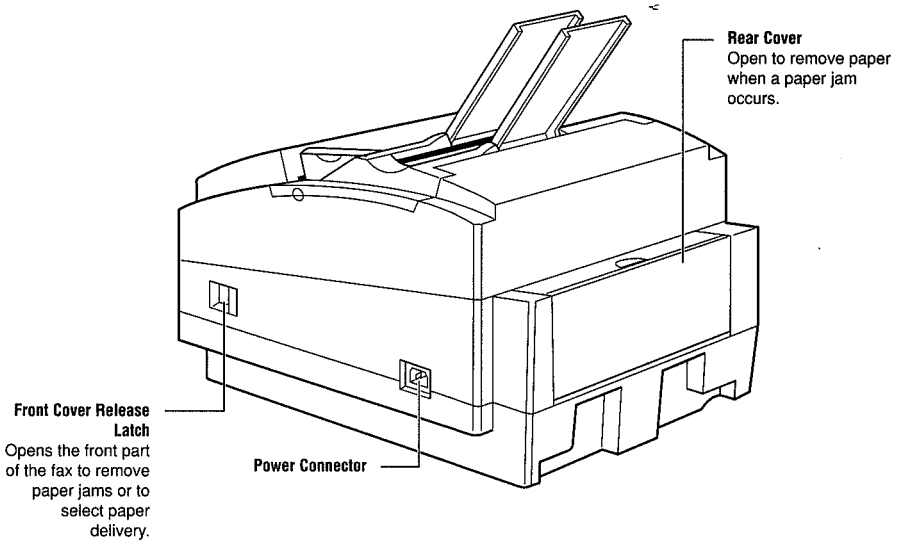
Controls, Components, and Connections

Now that you've assembled your fax, use the diagrams on the following pages to become familiar with its components and functions.

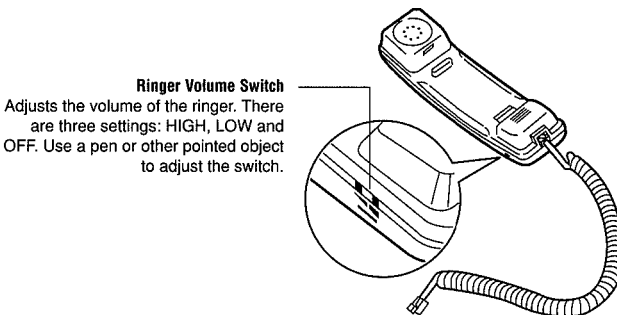
From the Front



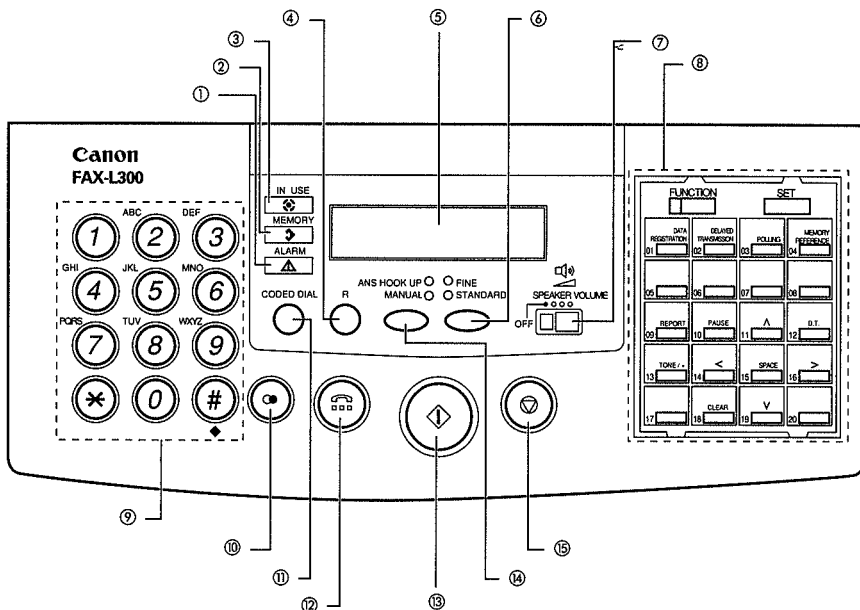
From the Back








The Handset (Option)

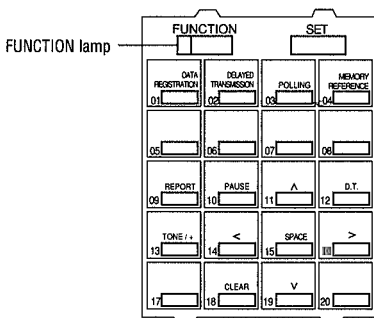


The Operation Panel



- ① **ALARM lamp**
Flashes when there is a paper jam, when the fax is out of paper or toner, when there is no cartridge installed, when the loaded paper size is incorrect, or when the printer door or front cover are open.
- ② **MEMORY lamp**
Lights when a document has been received in memory.
- ③ **IN USE lamp**
Lights when the telephone line is being used.
- ④ **R button (UK, ECG) I.P. (ECF)**
Press to dial an outside telephone number when the fax is connected through a switchboard (PBX).
- ⑤ **LCD Display**
Displays messages and prompts during operation. Displays selections, text, and names when registering information.
- ⑥ **FINE/STANDARD button**
Use to set resolution for the type of document you want to send.

- ⑦ **SPEAKER VOLUME switch**
Set the monitor volume of the speaker with this switch.
- ⑧ **One-Touch Speed Dial/Special Function buttons** 
Use these buttons for One-Touch Speed Dialling and to perform special operations.
- ⑨ **Numeric buttons**
Use the numeric buttons to enter phone numbers when dialling. These buttons also enter text, numbers, and symbols when registering names and numbers.
- ⑩  **(REDIAL) button**
Press to dial the previous number dialled with numeric buttons.
- ⑪ **CODED DIAL button**
Press this button and then press a 2-digit number code under which you have previously registered a facsimile or telephone number for Coded Speed Dialling.
- ⑫  **(HOOK) button**
Press to dial with the numeric buttons when using manual sending.
- ⑬  **(START/COPY) button**
Press to start sending, receiving, copying, and other operations.
- ⑭ **ANS HOOK UP/MANUAL button**
When both lamps are off, the fax is set for automatic receiving. Press and light ANS HOOK UP when an answering machine is connected. Press and light MANUAL for manual document receiving.
- ⑮  **(STOP) button**
Press to cancel sending, receiving, or registering data, or to cancel any other operation.



- **FUNCTION button**

Use to select special functions such as Data Registration and Polling. The FUNCTION lamp must be lit to select these functions.

- **SET button**

Use to accept special function settings and activities.

The following buttons perform special operations when the FUNCTION lamp is on:

- **DATA REGISTRATION button**

Press to start data registration for facsimile numbers, names, and other important settings for sending, receiving and printing.

- **DELAYED TRANSMISSION button**

Press to start registering a time for delayed sending.

- **POLLING button**

Use for polling receiving.

- **MEMORY REFERENCE button**

Use to delete or resend documents stored in memory, or print a document or a list of documents in memory or memory TX.

- **REPORT button**

Use to print activity reports.

- **Search buttons (A, V)**

Use to scroll through selections during data registration.

- **Cursor buttons (<, >)**

Use to move the cursor during data registration.

- **SPACE button**

Press to enter a space between numbers or letters when you register facsimile numbers and names.

- **CLEAR button**

Press during data registration to clear a number or name.

- **TONE/+ button**

Press to use tone dialling, even if your fax is connected through a pulse dial telephone. Press also to enter a + in your facsimile number.

- **PAUSE button**

Press to enter pauses between digits when dialling or registering facsimile numbers.

- **D.T. button**


Press to confirm the dial tone when dialling a telephone number.

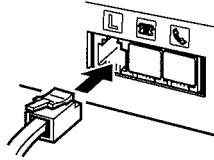
Making Connections

Use the following instructions to connect phone lines to your fax.

■ Connecting the Telephone Line

1


Connect the telephone line to the fax jack marked .

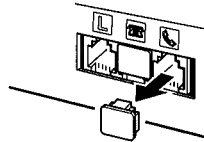


Your telephone line must have an RJ11-C wall jack. Contact your telephone company if you need one installed.

■ Connecting a Telephone or Optional Handset

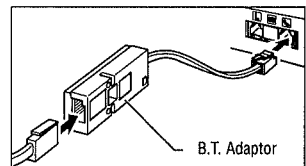
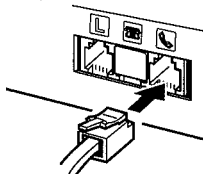
1

If you wish to connect a telephone or optional handset to the fax, remove the cover of the jack marked .



2

Connect the end of the telephone or optional handset cord to the jack marked .




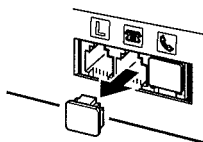
U.K. Only

- Users in the UK only
When you connect a telephone or optional handset, be sure to connect the B.T. adaptor. Contact Canon UK concerning the B.T. adaptor.


■ Connecting an Extension Phone or Answering Machine

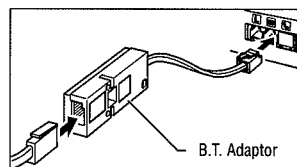
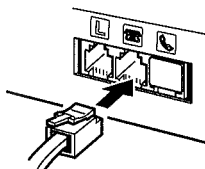
1

To connect an extension phone or answering machine to the fax, remove the cover of the jack marked .



2

Connect the end of the extension phone or answering machine cord to the jack marked .



U.K. Only

- Users in the UK only
When you connect an extension phone or answering machine, be sure to connect the B.T. adaptor. Contact Canon UK concerning the B.T. adaptor.



If the connector does not fit the jack or does not seat properly, contact your local Canon authorised service representative or telephone company to have the correct connector installed.

Powering Up

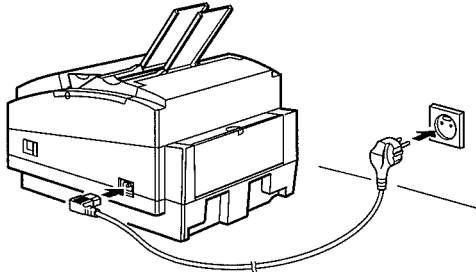
Once you finish setting up your fax, you are ready to power it up.



Follow these guidelines when connecting your fax to a power source:

- The fax unit is intended for domestic use only and requires 200–240 V AC. Do not use it outside the country where you purchased it.
- Use only the power cord that came with the unit. Using a longer cord or extension cord can cause the fax to malfunction.
- Unplug the unit by pulling on the plug itself, not on the cord.
- Do not plug the fax into a power outlet shared with an appliance that generates electrical noise, such as an air conditioner, computer, electric typewriter, or copier.
- Make sure nothing is laying on the power cord, and that the cord is located where it can not be walked on or tripped over.
- Do not overload the electrical outlet. Make sure that the total amperage used by all products plugged into the wall outlet does not exceed the ampere rating of the outlet's circuit breaker.

To connect the power cord, plug the cord into the power receptacle on the fax, and then into a 200–240 V AC power outlet.



Before plugging in the fax, make sure there are no documents in the automatic document feeder (ADF).



- The fax has no power switch, so its power is on as soon as you plug it in. Once powered up, though, the unit still needs to warm up before you can use it.
- Depending on the number of pages accumulated in the fax memory, it can take up to four minutes for the unit to warm up.

Controls, Components, and Connections

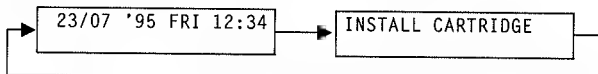
While the fax is warming up, the following message appears in the LCD display:

PLEASE WAIT

The unit is warmed up and ready for use when the date appears in the LCD display:

23/07 '95 FRI 12:34

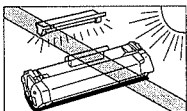
When connecting the fax for the first time, the date display alternates with the following message:



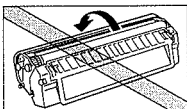
See "The Toner Cartridge" on the following pages for details on installing the toner cartridge.

The Toner Cartridge

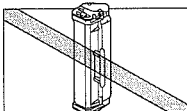
Handling and Storing Cartridges



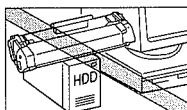
- Do not expose the cartridge to direct sunlight or bright light for longer than five minutes.



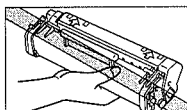
- Do not open the drum protective shutter on the cartridge. If the drum surface is exposed to light and damaged, print quality may deteriorate.



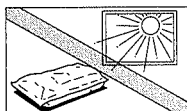
- Do not stand the cartridge on end, and do not turn it upside down. If toner becomes caked in the cartridge, it may prove impossible to free it even by shaking the cartridge.



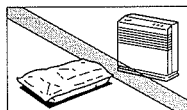
- Keep the cartridge away from computer screens, disk drives, and floppy disks. The magnet inside the cartridge may harm these items.



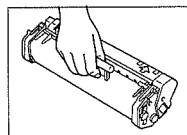
- Never touch the drum protective shutter. When holding the cartridge avoid touching the drum protective shutter with your hands.



- Do not store the cartridge in direct sunlight.



- Avoid locations subject to high temperature, high humidity, or rapid changes in temperature. Store the cartridge between 0° and 35°C.



- Hold the cartridge as shown so that your hand is not touching the drum protective shutter.

- Store the cartridge in its protective bag. Do not open the bag until you are ready to install the cartridge in the fax.
- Save the protective bag. You may need to repack and transport the cartridge at a later date.
- Do not store the cartridge in salty air or where there are corrosive gases such as from aerosol sprays.



DO NOT PLACE THE CARTRIDGE IN FIRE. TONER POWDER IS FLAMMABLE.

Installing/Replacing the Toner Cartridge

The fax uses a Canon FX3 toner cartridge. The procedure below explains how to install the cartridge when first using, and how to replace it when the toner runs out.

When the message REPLACE CARTRIDGE appears, the toner in the cartridge may simply be unevenly distributed. Before replacing the cartridge, follow the instructions on page 8-12 to evenly distribute the toner. If after doing this the message remains displayed or the print quality is low, replace the cartridge as described below.



If you try to install other cartridges, you may damage the fax.

1

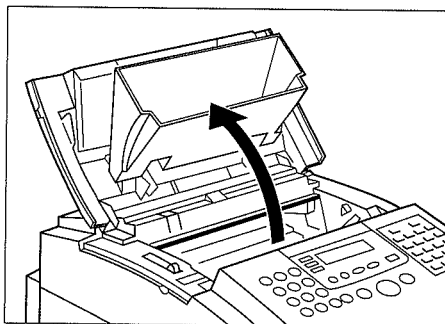
Remove any documents or printed pages from the fax.

2

Make sure the unit is plugged in.

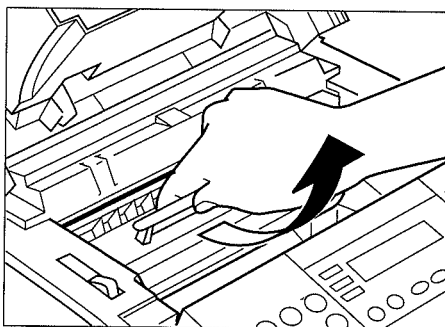
3

Open the printer door by grasping it at both sides and lifting it up.



4

If replacing a used cartridge, remove the old one as shown.



5

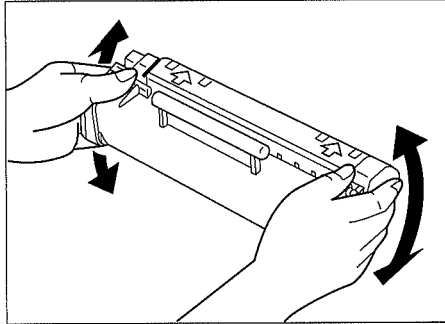
Remove a new toner cartridge from its protective bag.

- Save the protective bag. You may need to repack and transport it in the future.

6

Gently rock the cartridge from side to side five or six times.

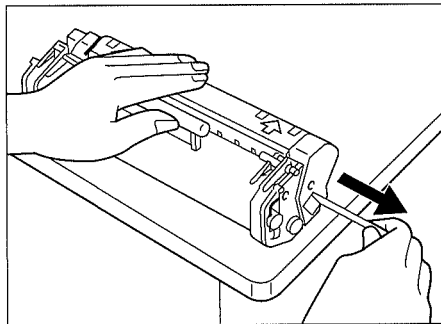
- This evenly distributes the toner inside.



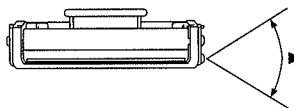
7

Place the cartridge on a flat, clean surface, and steady it with one hand. Then remove the seal by gently pulling on the plastic tab with your other hand.

- Use a firm, even pull to remove the plastic seal. To avoid breaking the seal, do not jerk on it unevenly.

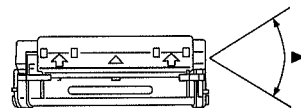


Side view



Pull in this direction

Top view

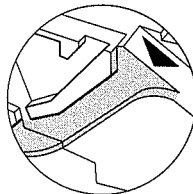
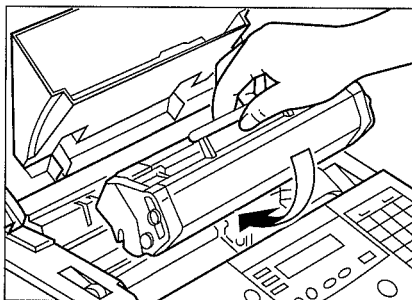


Pull in this direction

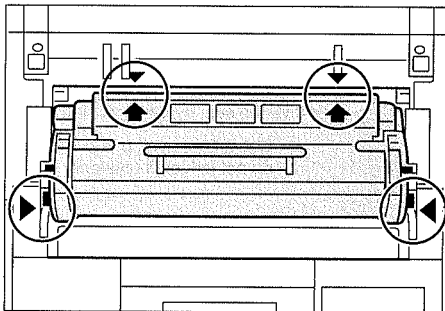
8

Hold the cartridge by its handle and insert as follows:

- Make sure the round large tabs on the sides of the cartridge are aligned with the arrow marks (▶, ◀) on the printer.



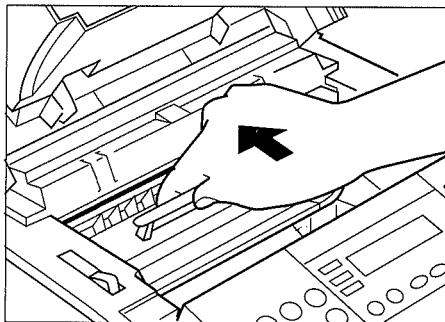
- Align the arrow marks on the cartridge (↗) with the arrow marks on the inside of the fax (▼).



9

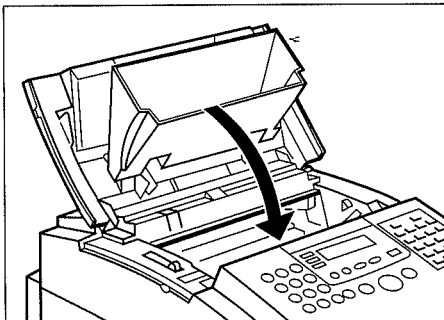
Gently slide the cartridge down and back and *push firmly until it clicks into position.*

- Make sure the cartridge is set all the way into the unit. Otherwise the fax won't operate properly.



10

Gently close the printer door.



- Never leave the printer door open. Exposure to light can damage the drum surface.
- If you see CHECK PRT/FRNT COVRS in the display even after closing the printer door, the cartridge may not be installed properly. Try installing the cartridge again.
- If you see REPLACE CARTRIDGE in the display, the cartridge may not be installed properly even if the printer door closes completely. Try installing the cartridge again.
- After you have replaced the cartridge, make a copy of a document to check if the fax is printing properly. See p. 5-24, "Making Copies" for details on making a copy.

Loading Recording Paper

When the message SUPPLY REC. PAPER appears in the display, you need to add paper to the paper cassette. Here are a few tips you should follow when you load paper into the paper cassette.

- Use A4-size paper.
- Use standard 60–90 g/m² weight paper.
- Do not use wrinkled or curled paper.



To keep the paper from curling, do not open paper packs until you are ready to use the paper. Store unused paper from opened packs in a cool, dry location in the original packaging.

- Let the paper run out before you refill the cassette. Avoid mixing new paper with paper remaining in the paper cassette.
- Stack the paper so the top and bottom edges and sides are straight and even before placing it in the paper cassette.



The paper cassette supplied with your fax holds up to 250 sheets of standard weight paper or a stack of 2.75 cm high.

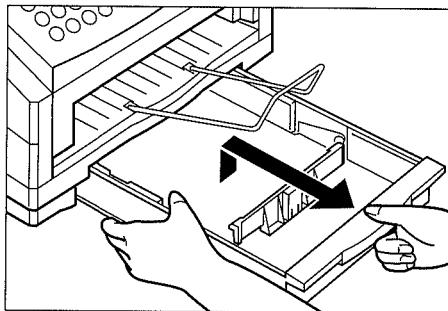
To load paper in the paper cassette:



Do not load paper in the cassette when the fax is printing.

1

Lift the paper cassette slightly and pull it out.

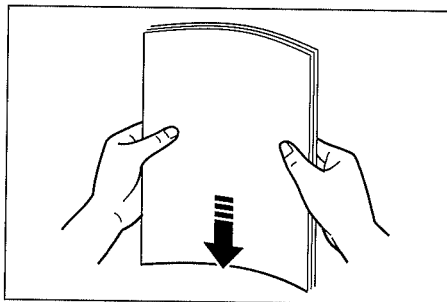




- Remove the paper cassette being careful not to drop it as you pull it out.
- Filling the paper cassette without removing it completely from the fax may cause the paper to misfeed. Be sure to remove the paper cassette completely before loading paper.

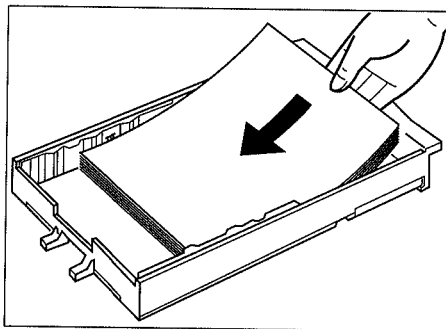
2

Before loading the paper, stack it so that the leading edge and sides of the paper are even.



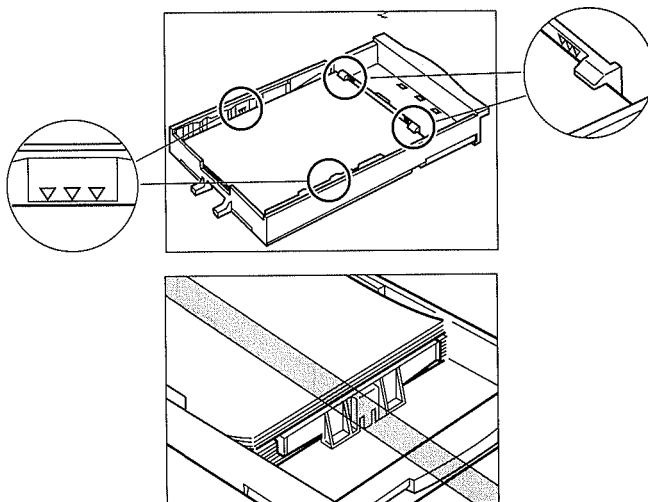
3

Load the stack of paper into the paper cassette.





- Make sure the paper stack is not higher than the limit marks (▼▼▼) on the sides of the cassette, and is under the tabs on the paper selector.

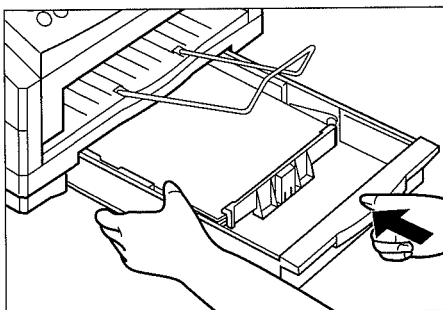


- Check all corners and edges of the paper stack to be sure they are flat and even.
- The cassette can hold about 250 sheets of paper (standard paper).

4

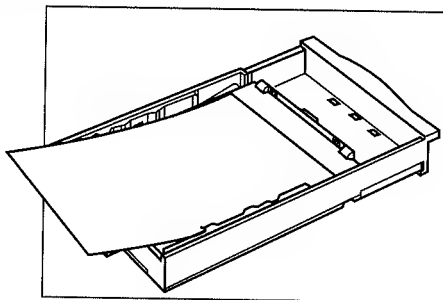
Gently insert the paper cassette into the fax until it clicks into position.

- If the paper cassette is not installed correctly, the received document image might shift, or the recording paper might jam.





- If you pull out the paper cassette with paper remaining in the cassette, be sure to check the following before reinserting it:
 - Make sure no paper is out of the cassette.



- Make sure there is no loose paper inside the fax unit.
- If you wish to use the Letter or Legal size paper, please contact your authorised Canon Facsimile Service Dealer.
- If the paper cassette jams when you try inserting it in the fax, remove it from the fax and open the printer door. Then close it and try reinserting the paper cassette.

Selecting Paper Delivery

Received faxes or copies can be delivered through the face-up or face-down slots. Choose paper delivery according to the job the fax is performing.

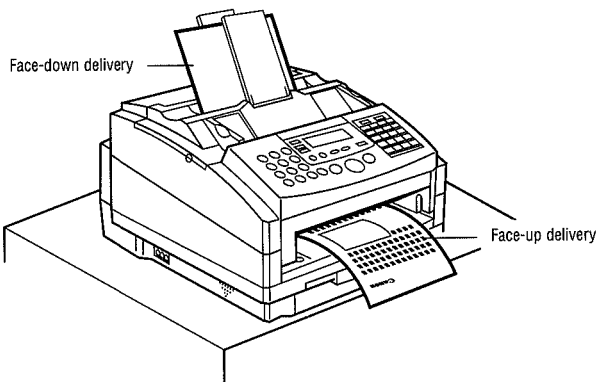
Face-Down Delivery (Factory default setting)

Face-down delivery is used in most situations. The printed pages come out through the face-down delivery slot, and the pages are stacked in their correct order. The face-down delivery slot can hold up to about 60 sheets of standard paper.

Face-Up Delivery

Printed pages come out through the face-up delivery slot in reverse order. Since there is no limit in the number of pages that can be delivered, this setting is convenient when receiving a large number of faxes, when making many copies, or when you plan to be away from your office or home for a long period of time.

Remove the document support for scanned documents and place the fax machine on the edge of a table. This will allow the printed pages to come out without blocking the face-up delivery slot.



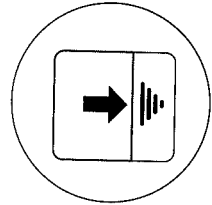
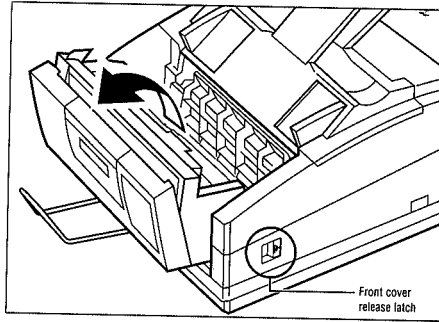
Paper Delivery Selector

Follow the procedure below to select face-up or face-down delivery with the paper delivery selector:

- 1 Remove any documents or printed paper from the fax.

2

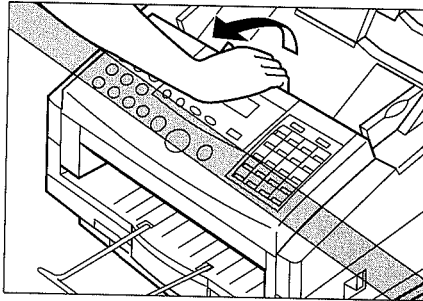
Use the front cover release latch to open the front cover.



Front cover release latch

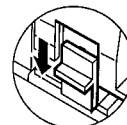
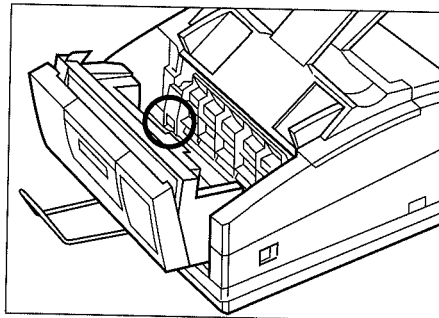


Do not open the front cover without pushing the release latch open as this may cause damage to your fax. Be sure to push the front cover release latch to open the front cover.

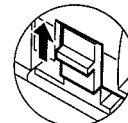


3

Move the paper delivery selector down for face-up delivery (☐), or up for face-down delivery (▢) delivery.



Face-up delivery (☐)



Face-down delivery (▢)

Selecting Paper Delivery



If you select face-up delivery, be sure to remove the document support for scanned documents and to place the fax machine on the edge of a table. This will allow the printed pages to come out without blocking the face-up delivery slot.

4

Gently close the front cover.



When the face-down slot becomes full OUTPUT TRAY FULL is displayed. Faxes received after this message is displayed will be stored in memory.

Storing Information in the Fax

This section describes how to store information in your FAX-L300. It includes:

- Guidelines for Registering Information
 - Entering numbers, letters, and symbols
 - Editing your entry
 - Using the One-Touch Speed Dial/Special Function buttons
 - Using the menu system
- Personalising Your Fax
 - Identifying your documents
 - Entering the date and time
 - Registering your fax number and name
 - Setting the telephone line type

■ Guidelines for Registering Information

Follow these guidelines when you enter information into the fax:

- If you pause and do not make an entry for more than 60 seconds, the fax returns to standby mode. You will then have to start entering the information all over again.
- If you make a mistake while making an entry, you can press **CLEAR** and repeat the entry, or press **(STOP)** and start again.

Entering Numbers, Letters, and Symbols

Use the numeric buttons to enter numbers, letters, and symbols.

Button	Uppercase	Lowercase
1		
2	ABCÄÅÄÄÄÆÇ	abcäåääääæç
3	DEFÐÉÊË	defðéëëë
4	GHIÏÎÎÎ	ghiïíîîî
5	JKL	jkl
6	MNOÑÒÓÔÕÖ	mnoñòóôõö
7	PQRS Þ	pqr Þ
8	TUVÜÙÚÛ	tuvüùûü
9	WXYZÝ	wxyzý
0		
*		
#	- . * # ! " , : ; ^ ` _ = / ' ? \$ @ % & + () [] { } < >	

Each button contains a letter group; an upper case set, followed by a lower case set of characters. Every time you press, the character changes to the next one in the group.

Storing Information in the Fax

To switch between number and letter mode, press *****.

When you are in numeric mode, the number 1 appears in the upper right corner of the display:

UNIT NAME : 1




When you are in letter mode, an A appears in the upper right corner:

UNIT NAME : A


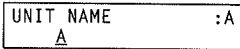

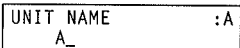

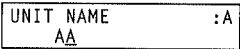
Here is the general method of entering letters:

ACTION

DISPLAY

- 1** Make sure the unit is in letter mode (press ***** if not).
- 2** Press the button that contains the letter you want. Each button contains upper and lower case characters. When you press the button, the upper case version of the first letter appears in the display.
If you want to enter a space, press the **SPACE** (Special Function button).
- 3** Press the button repeatedly as needed until the letter you want appears in the display. Then press any other button to enter the letter.
For example, you would enter a lowercase letter k like this:
 - 1** Press the ***** button until an **a** appears in the upper right corner and press the **5** button. The letter j appears in the display.
 UNIT NAME : a
j
 - 2** Press the **5** button once. The letter k appears in the display.
 UNIT NAME : a
j → k
 - 3** To enter the k, press the button of the next letter you want to enter, or press the right cursor **>** (located in the One-Touch Dial buttons).
 (for example) UNIT NAME : a
ka

To enter two letters from the same group, you have to use the right cursor button. For example, you would enter AA like this:

- | ACTION | DISPLAY |
|---|--|
| 1 Press 2 for the first A.
 |  |
| 2 Press the right cursor > (located in the One-Touch Dial buttons) to enter the A and move the cursor one space to the right.
 |  |
| 3 Press 2 for the second A.
 |  |

Editing Your Entry

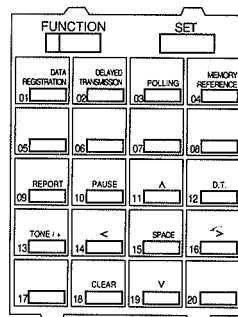
You can also correct characters you've already entered, as follows:

- Use the cursor buttons (<>) to move the cursor to the character you want to change.
- Enter the correct character or \square space.

If you want to erase the entire entry and start over, press **CLEAR** (located in the One-Touch Speed Dial/Special Function buttons).

Using the One-Touch Speed Dial/Special Function Buttons

The One-Touch Speed Dial/Special Function buttons allow you to use speed dialling and special functions such as delayed fax transmissions, printing reports, and polling. The **FUNCTION** button switches the buttons' functions between One-Touch Speed Dialling and Special Functions.











Using the Menu System

The fax includes a menu system that you use to select fax, telephone, and printer operations, and to enter user information. The system includes these seven items:

- **SPEED DIAL SETUP**
Lets you register numbers for One-Touch Speed Dialling, Coded Speed Dialling and Group Dialling.
- **USER SETTINGS**
Lets you enter the information that prints on the faxes you send, to set scanning contrast, and to enter other basic data. Enter these settings when you plug your fax in for the first time; you will rarely need to change them thereafter.
- **REPORT SETTINGS**
Lets you set the fax to print a report every time you send or receive a fax, and also contains options for printing summary reports.
- **SEND (TX) SETUP**
Contains items that let you customize how your fax sends documents.
- **RECEIVE (RX) SETUP**
Allows you to customize how your fax receives documents.
- **FAX PRINTER SETUP**
Lets you customize how your unit prints documents.
- **SYSTEM SETTINGS**
Allows you to set the date format, transmission and receive speed, etc.

For details, see Appendix A, "The Menu System."

You'll use the Special Function buttons to display and select items from the menu system, as follows:

ACTION	DISPLAY
1  	<div style="border: 1px solid black; padding: 5px;"> DATA REGISTRATION 1. SPEED DIAL SETUP </div>
2  	Use the search buttons to change the menu display. <ul style="list-style-type: none"> • Press  to display the next item in the menu. (The list will wrap from the last item in the list back to the first.) • Press  to display the previous item in the menu. (The list will wrap from the first item in the list back to the last.)
3  or 	<div style="border: 1px solid black; padding: 5px;"> 23/07 '95 FRI 12:34 </div>

■ Personalising Your Fax

Identifying Your Documents

When sending documents, you can have your fax number, your name, and the current date and time printed out by the receiving fax. This information is called your TTI (Transmit Terminal Identification) and appears at the top of the faxed document in small type.

By identifying the documents you send, the receiving party can recognise your fax messages at a glance. Here is a sample document with the identifying information:

The date and time you sent the document	Your Fax/ Telephone number	Your name or company name	The name of the party who is receiving the document	The page number
20/02 '86 TUE 05:54 FAX 31 20 545 8264	CANON EUROPA	+++ CANON-TEST	@001	

THE SLEREKE COMPANY LIMITED

SAPORS LANE - BOOLE - DORSET - BH 25 8 ER
TELEPHONE BOOLE (045 13) 51617 - TELEFAX 123456

Our Ref. 350/PJC/EAC 18th January, 1972.

Dr. P.N. Cundall,
Mining Surveys Ltd.,
Holroyd Road,
Reading,
Berks.

Dear Pete,

Permit me to introduce you to the facility of facsimile transmission.

In facsimile a photocell is caused to perform a raster scan over the subject copy. The variations of print density on the document cause the photocell to generate an analogous electrical video signal. This signal is used to modulate a carrier, which is transmitted to a remote destination over a radio or cable communications link.

At the remote terminal, demodulation reconstructs the video signal, which is used to modulate the density of print produced by a printing device. This device is scanning in a raster scan synchronised with that at the transmitting terminal. As a result, a facsimile copy of the subject document is produced.

Probably you have uses for this facility in your organisation.

Yours sincerely,



















Phil.

F.J. CROSS
Group Leader - Facsimile Research










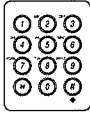












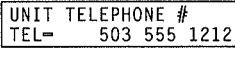


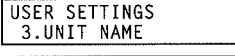
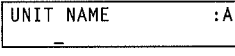
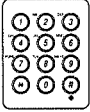
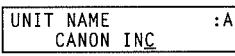


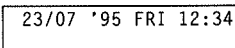
The top line also includes the name of the receiving party when you send the document using One-Touch Speed Dialling, Coded Speed Dialling, or Group Dialling (if you registered it).

Entering the Date and Time

Use the following procedure to enter the specific information included on every fax you send:












	ACTION	DISPLAY
1	   	<div>USER SETTINGS</div> <div>1.DATE & TIME</div>
2	Press SET and use the numeric buttons to enter the correct date and time. Use the 24-hour system for the time (5:20 p.m. would be 17:20, for example).   Ex:          	<div>DATE & TIME</div> <div>23/07 '95 FRI 12:34</div>
3	Press SET to save the date and time, then press STOP to return to standby mode.  	<div>23/07 '95 FRI 12:34</div>

Registering Your Fax Number and Name

- | ACTION | DISPLAY |
|--|--|
| 1
    |  |
| 2
Use the search buttons to display 2. UNIT TELEPHONE #.
  |  |
| 3
Press SET and enter your fax number—up to 20 digits—using the numeric buttons.
  Ex:    
   
    |  |
| 4
Press SET to save the fax number, then press SET again to display 3. UNIT NAME.
  | 
 |
| 5
Enter your name or your company name—up to 24 characters—using the numeric buttons. (→p. 2-29)
 Ex: CANON INC |  |
| 6
Press SET to save the name, then press STOP to return to standby mode.
  |  |

Setting the Telephone Line Type

The FAX-L300 is factory set to work with rotary pulse {EC} touch tone {UK} telephone lines. If you have a touch tone {EC} rotary pulse {UK} line, you will need to change the telephone line setting. Follow the procedure below:

ACTION	DISPLAY
1    	<div>USER SETTINGS</div> <div>1.DATE & TIME</div>
2 Use the search buttons to display 10. TEL LINE TYPE.  	<div>USER SETTINGS</div> <div>10.TEL LINE TYPE</div>
3 Press SET , then use the search buttons to select TOUCH TONE {EC} ROTARY PULSE {UK}.   	<div>{EC} TEL LINE TYPE TOUCH TONE</div> <div>{UK} TEL LINE TYPE ROTARY PULSE</div>
4 Press SET to save your selection, and press STOP to return to standby mode.  	<div>23/07 '95 FRI 12:34</div>

Sending Faxes

Part

3

Now that you have installed and set up your Canon FAX-L300, you are ready to begin sending faxes.

This section describes how to enter the user information, the types of documents you can fax, two ways of sending faxes, and how to improve the appearance of your faxes.

Document Requirements

Before sending a fax, make sure your document meets the fax's paper size, weight, and thickness requirements listed below.

Weight

One-page document	34.7 ^c – 240 g/m ²
Multipage document	50 – 90 g/m ²

Width

Paper	146.5 – 259 mm
Scanning	208 mm

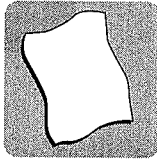
Length

103.5 – 366 mm

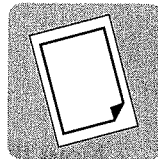
Thickness

One-page document	0.06 – 0.3 mm
Multipage document	0.07 – 0.13 mm

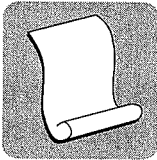
To prevent paper jams in the automatic document feeder (ADF), make sure not to use any of the following with the fax:



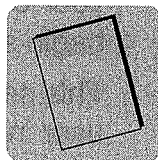
Wrinkled or creased paper



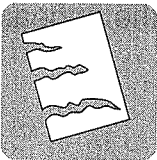
Carbon or carbon back paper



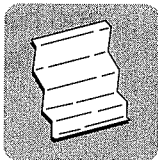
Curled paper



Coated paper



Torn paper



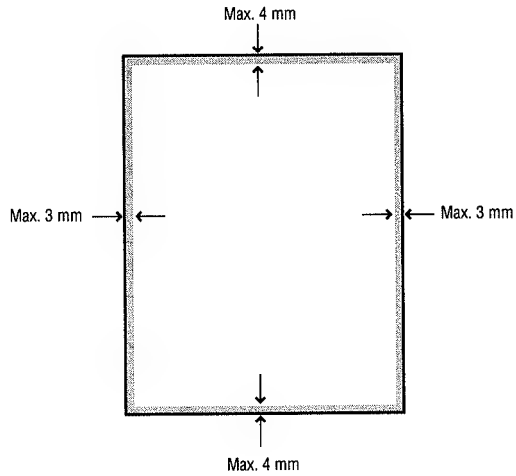
Onion skin or very thin paper



The scanned document may not be delivered properly onto the output tray (document support for scanned documents) if the paper of your document is thin. In this case, contact your Canon Facsimile Dealer.

Scanning Area

Also, make sure your document's text and graphics do not extend all the way to the edge of the page. The white area in the illustration below shows the area the fax can scan on an A4-size page.



Preparing the Document

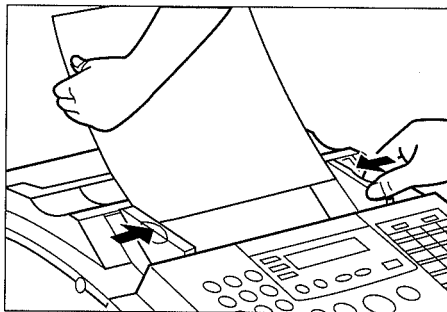
- Remove all paper clips, staples, tape, etc. from the document.
- Let any wet ink, correction fluid, or paste dry completely.
- Make sure all pages are the same size and type.

Loading the Document

The fax can hold up to 30 A4-size, letter-size or 20 legal-size pages at a time. If your document is longer than this, you can add more pages to the automatic document feeder (ADF) while the fax is being sent (see "Adding Pages During Transmission" later in this section).

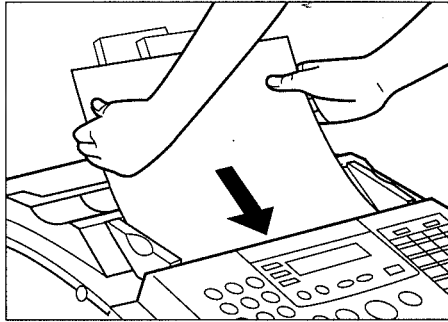
1

Slide the paper guides to fit the width of the document.

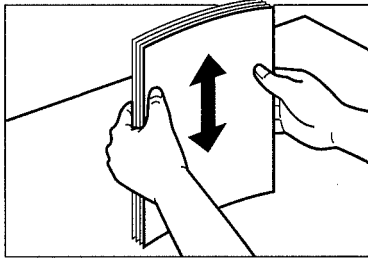


2

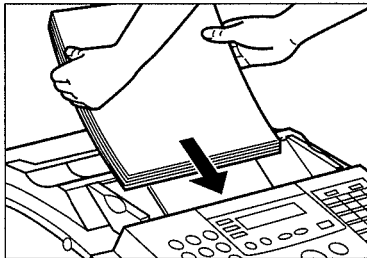
Place the document face down on the fax, and gently insert the document into the automatic document feeder (ADF) until it stops.



- If you are experiencing difficulty feeding multipage documents, remove the stack and tap it on a flat surface to even the edges.



Then insert it into the automatic document feeder (ADF) until it stops.



You are now ready to send the fax as described on the following pages.

Two Ways to Send a Fax

The fax provides two ways of sending faxes:
Memory Sending and Manual Sending.

Memory Sending

Memory Sending scans your document into the fax's memory. As soon as it starts scanning if the telephone line is free, the unit will call the other party and will start to transmit the information even as the remaining pages are being scanned.

Memory Sending allows you to load faxes into memory while the fax performs other tasks, such as transmitting a fax. It also lets you send to numbers that are often busy (it automatically redials), or to send to more than one fax number.

1

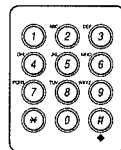
Load the document into the automatic document feeder (ADF) as described previously.



2

Dial the fax number you're sending to.

Use the numeric buttons, One-Touch Speed Dialling, or Coded Speed Dialling to enter the number.



Manual Sending

Manual Sending dials the number, makes the connection, and sends the fax immediately. It also lets you talk to the other party before sending the document. This is useful when the other party uses a single phone line for both voice and fax transmissions. You must use the handset for Manual Sending.

1

Load the document into the automatic document feeder (ADF) as described previously.




2

Press **HOOK**. This activates the speaker (you should hear the dial tone) and lights the IN USE lamp.



3

Check the display to make sure the number is correct. If not, press  (**STOP**) and begin again.

TEL= 1 503 555 1212


4

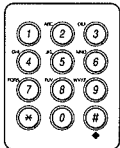
Send the fax by pressing **START/COPY**.



As the document is scanned into memory, a transaction number appears in the display: this number identifies the document and can be used to delete it from memory (see "Deleting a Stored Fax from Memory" in Part 5 for details).

3

Dial the fax number you're sending to.
Use the numeric buttons, One-Touch Speed Dialling, or Coded Speed Dialling to enter the number. If you make a mistake, press  (**STOP**) and start again from step 2.

**4**

When you hear the other party answer, pick up the handset and tell them to get ready to receive a fax by pressing the start button on their fax machine. (You will hear a fax sound over the handset when they do this.)

5

Press **START/COPY** and hang up. The fax begins sending your document.



Adding Pages During Transmission

Wait until the last page starts to feed into the fax. When all but about 2.5 cm of the last page is scanned, place the new page on top of the last page and gently feed it in.

Cancelling a Transmission

ACTION

DISPLAY

1

Press **STOP**.



- If you're using memory sending, this message shown below appears. Go to step 2.

CANCEL DURING TX/RX? YES=(*) NO=(#)
--

- If you're using manual sending, the transmission is cancelled immediately.


2

Press * to cancel the transmission, or press # to complete the transmission.



or



If you press the  (**STOP**) button while the fax is waiting to redial, the display will be deleted, but the transmission will not be cancelled. Follow the procedure on page 5-20, "Deleting a Stored Fax from Memory" to cancel the transmission.

Messages Displayed During Sending

When the fax sends a document, the following messages are displayed. These messages allow you to see the progress of the transmission and know when it has been completed.

Messages during memory sending

Message displayed when the fax is scanning document to be sent.

		Transaction No.
TRANSMIT	0040	
SCANNING DOC.	P.001	
		Page No.

During transmission, the following are displayed alternately:

- Condition (CALLING, TRANSMIT, etc.)
- Dialed number
- Other party's name
- Transmission mode (G3)
- ECM TX (in ECM)
- TX/RX No.
- Page No.

When the document has been transmitted, the following are displayed for about ten seconds before the fax returns to standby mode:

- Transmission result (TRANSMITTING OK or an error message)
- TX/RX No.

The fax will print a transmission report (TX Report) if it has been set to do so.
(→p. 6-4, A-5)

Redialling

Manual Redial

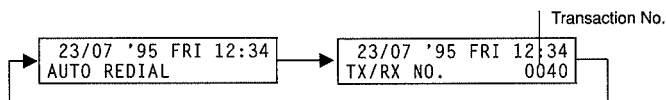
To redial the last number dialled with the numeric buttons, press the **(REDIAL)** button.

To cancel manual redialling, simply press the **(STOP)** button.

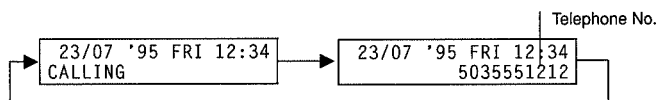
Auto Redial (in Memory Sending)

If the line is busy or there is no answer, the fax waits two minutes and then dials the same number.

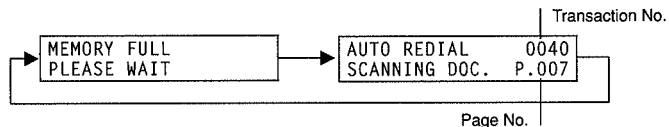
When the fax is waiting to redial, the following messages are displayed:



These messages are displayed once the fax has redialled the number and is calling:



Auto redialling occurs even if the fax's memory becomes full when the document is being scanned. In this case, the following messages are displayed:



If after two attempts the line is still busy or there is no answer, the fax stops redialling, sending stops, and an activity report is printed to remind you that the transmission was not completed.

Cancelling Auto Redialling

Auto redialling can not be cancelled with the **(STOP)** button while the fax is waiting to redial. To cancel, do one of the following:

- Wait until dialling begins and then press the **(STOP)** button.
- Delete the document from memory. See page 5-20, "Deleting a Stored Fax from Memory" for details.



The default settings for the auto redial feature are:

- Redials two times.
- Waits two minutes before redialling.
- If an error occurs during transmission, the fax resends the first page of the document and the error page.

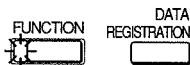


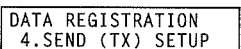


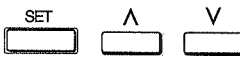
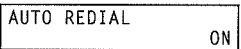
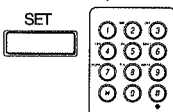
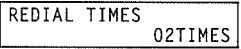
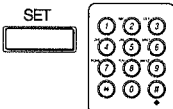

You can change these settings by following the procedure on the next page.

Setting Up Redialling

You can set up the following for automatic redialling:

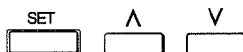
- The number of times the fax attempts redialling
- The time interval between redialling attempts
- How the fax handles redialling when a transmission error occurs

Follow the procedure below to adjust these settings.

ACTION	DISPLAY
1 	
2 Use the search buttons to display 4. SEND (TX) SETUP. 	
3 Press SET , then use the search buttons to display 3. AUTO REDIAL. 	
4 Press SET , then use the search buttons to display ON. 	
5 Press SET , then use the numeric buttons to enter the number of times you want the fax to redial (1 to 15 times*). 	
* Up to 3 times in the UK.	
6 Press SET , then use the numeric buttons to enter the time interval during rediallings (02 to 99 minutes). 	

7

Press **SET**, then use the search buttons to select whether or not the fax redials when a transmission error occurs.



Select **ON** to redial when a transmission error occurs.

TX ERROR RESEND ON

Select **OFF** to cancel redialling when a transmission error occurs.

TX ERROR RESEND OFF

8

Press **SET**, then if you selected **ON** in step 7, use the search buttons to select which pages are sent when an error occurs.

Resends the first page of the document and the pages after the error occurred.

RESEND TX FROM
ERROR & 1ST PG

Resends only the pages after the error occurred.

RESEND TX FROM
ERROR PAGE

Resends all the document pages.

RESEND TX FROM
ALL PAGES

9

Press **SET** to save your selection, then **STOP** to return to standby.



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Maximizing Image Quality

Canon's Ultra High Quality (UHQ) and auto-half-tone imaging technology allows you to send and receive faxes that have print quality very close to that of the originals.

Resolution

The fax has two resolutions:

■ STANDARD

This is the best setting for normal printed or typewritten text. It allows the fastest document transmission. To use it, press the resolution button (below the FINE and STANDARD indicator lamps) until the STANDARD lamp lights.

■ FINE

Fine provides twice the resolution of Standard, and is a good setting for documents with small text. To use it, press the resolution button until the FINE lamp lights.

When making copies, the fax automatically adjusts to FINE.

Auto Halftone

This setting tells the fax whether the fax includes halftone images, or is composed only of black text on a white background.

When Auto Halftone is ON the fax automatically adjusts to accurately reproduce documents that contain halftone images (such as photographs). Set to OFF when you send faxes containing only black text on a white background.

To change the Auto Halftone setting:

ACTION

DISPLAY

1

FUNCTION	DATA REGISTRATION	V	SET

USER SETTINGS
1.DATE & TIME

2

Use the search buttons to display 5. AUTO HALFTONE.

^	V

USER SETTINGS
5.AUTO HALFTONE

3

Press SET to display the current type of document setting.

SET

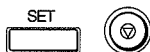
AUTO HALFTONE
ON

- 4** Use the search buttons to display the setting you want.



You can cancel the procedure by pressing **STOP** any time before pressing **SET** in step 5. This returns the fax to standby mode without saving the changes.

- 5** Press **SET** to save your selection, and press **STOP** to return to standby mode.



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When making copies, the fax automatically adjusts to Auto Halftone ON.

Scanning Contrast

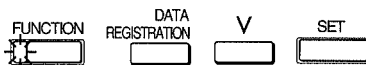
The fax can send faxes using any of three contrast settings: Dark, Standard, and Light. STANDARD is the default, and is fine for most documents. If the print on your document is very light, use DARKER; if the print is dark, use LIGHTER.

To change the Scanning Contrast setting:

ACTION

DISPLAY

1



USER SETTINGS
1.DATE & TIME

2

- Use the search buttons to display 6. SCANNING CONTRAST.



USER SETTINGS
6.SCANNING CONTRAST

3

- Press **SET** to display the current scanning contrast setting.



SCANNING CONTRAST
STANDARD

4

- Use the search buttons to display the scanning contrast you want.



You can cancel and return to standby mode by pressing **STOP** any time before pressing **SET** in step 5.

5

- Press **SET** to save your selection, and press **STOP** to return to standby mode.



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Receiving Faxes

Part

4

This chapter describes how to set up the Canon FAX-L300 to receive faxes in a way that best suits your needs.

Three Ways to Receive a Fax

The fax can receive documents by any of three methods, each of which can be further customized to suit your needs.

■ Automatic receiving

Use automatic receiving when you want your fax to automatically receive faxes without any intervention from you. In this mode, the fax automatically receives calls from fax machines, and can ring or not (as you select) if it receives a telephone call.

■ Answering machine receiving

Use this mode if you have a combined fax/phone line with an answering machine, and want to leave it unattended. When your answering machine is set to answer, this mode receives fax calls, and routes telephone calls to the answering machine.

■ Manual receiving

For manual receiving, you need to have the optional handset installed or an extension telephone connected.

Use manual receiving when you want to answer every call yourself. In this mode the fax rings for every incoming call, whether from a fax machine or a telephone. You can also use extension telephones with this mode.

How to Set the Receiving Mode

The fax is set for automatic receiving when you first plug it in. You can change to either of the other two receiving modes by pressing the button below the ANS HOOK UP and MANUAL indicator lamps: the lamps show which mode is active.

- If both lamps are off, the fax is set for automatic receiving. To adjust the automatic receiving options, turn to "Automatic Receiving Options," below.
- If the MANUAL lamp is on, the fax is set for manual receiving. For more information on manual receiving, see "Manual Receiving," below.
- If the ANS HOOK UP lamp is on, the fax is set for answering machine receiving. See "Using the Fax with an Answering Machine" below for more information.



Answering machine receiving mode will not work properly if you do not have an answering machine hooked up to your fax.

Automatic Receiving Options

The fax's automatic receiving mode can operate two ways:











■ Fax-only receiving

Fax-only receiving answers all calls, but accepts only those from fax machines and disconnects all others. (This is the default setting.)

■ Fax/telephone auto-switch receiving

Use fax/telephone auto-switch receiving when you have a combined fax/telephone line. If the call is from a fax, your fax receives the document transmission without ringing. If the call is from a telephone, your fax rings to alert you to pick up the handset to answer the call.

You can choose one of these automatic receiving options as follows:

- | ACTION | DISPLAY |
|---|--|
| 1
FUNCTION  DATA REGISTRATION  | DATA REGISTRATION
1.SPEED DIAL SETUP |
| 2
Use the search buttons to display 5. RECEIVE (RX) SETUP.
  | DATA REGISTRATION
5.RECEIVE(RX) SETUP |
| 3
Press SET , then use the search buttons to display 2. RX MODE.
SET   | RECEIVE (RX) SETUP
2.RX MODE |
| 4
Press SET , then use the search buttons to display the receiving mode you want.
SET   <ul style="list-style-type: none"> Fax only receiving–AUTO FAX RX:
 <div style="border: 1px solid black; padding: 5px; display: inline-block;"> RX MODE
 AUTO FAX RX </div> Fax/telephone auto-switch receiving–FAX/TEL AUTO SW:
 <div style="border: 1px solid black; padding: 5px; display: inline-block;"> RX MODE
 FAX/TEL AUTO SW </div> | |
| 5
Press SET to set additional options, or press STOP to return to standby mode. See "Setting Up Fax/Telephone Auto-Switch Receiving" below for details.
SET  or  | |

Setting Up Fax/Telephone Auto-Switch Receiving

When you select the FAX/TEL AUTO SW, you can also set these options.

- F/T RING TIME

When your fax is set to receive both fax and telephone calls automatically, it rings to alert you to pick up the handset if the call is from a person. If you do not pick up the handset within a certain amount of time, the fax stops ringing. Use this option to change the time from 10 to 45 seconds. The default is 15.

- F/T SWITCH ACTION

Not all fax machines are capable of sending a FAX TONE (the CNG tone that warns the receiving fax machine that a fax is coming). For those cases the fax may think that the call coming in is a voice call and rings to alert you of the call (the amount of time it is going to ring is determined by the F/T Ring Time setting above). If you do not answer the call, one of two things can happen:

1. If you set the F/T SWITCH ACTION to RECEIVE, the fax will switch to fax receive mode automatically at that point and start to receive the document. If no document comes in, it disconnects the call after approximately 35 seconds. The factory programmed default is RECEIVE.
2. If you set the F/T SWITCH ACTION to DISCONNECT, the fax will disconnect the phone call immediately freeing up your phone line at this point.

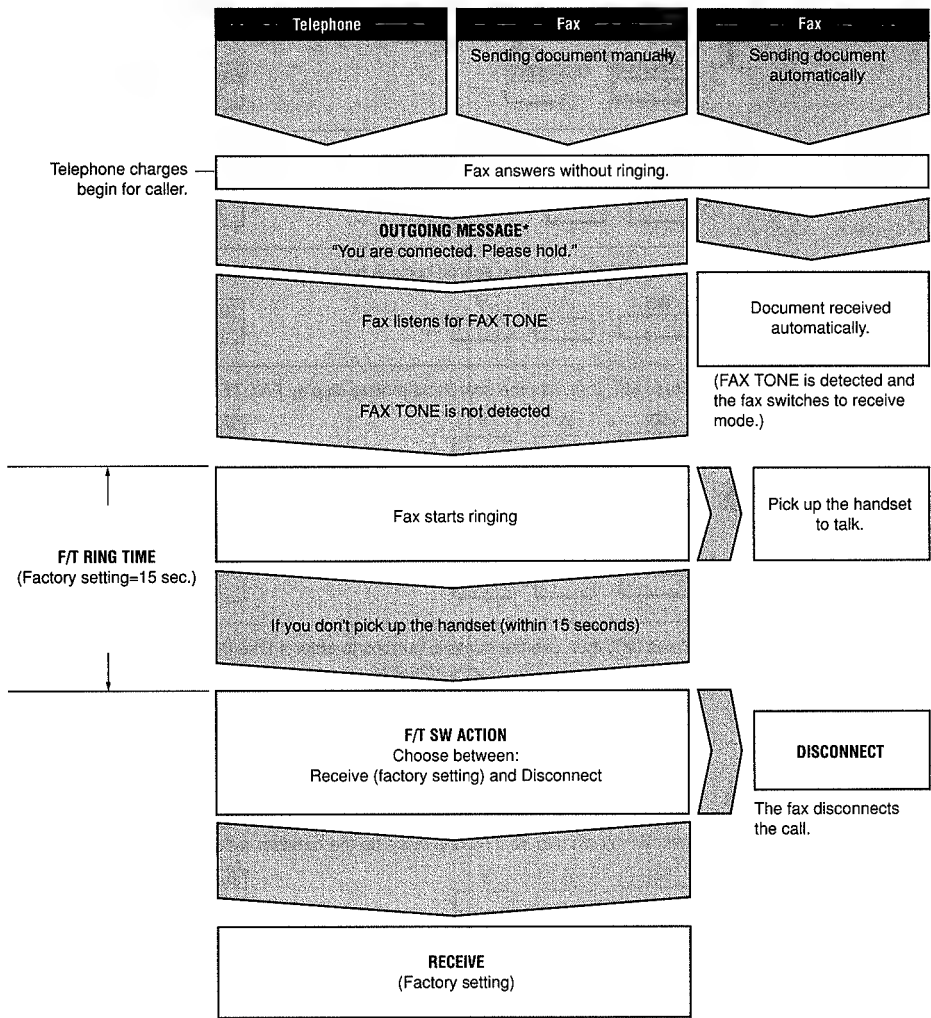
- OUTGOING MESSAGE

The outgoing message feature allows you to send an electronic voice message to the other party's fax when you receive a call: *"You are connected. Please hold."*

With a choice of 12 languages, you can select two languages if you want to send the message in two languages. Your choices for the message are: English, French, Spanish, German, Italian, Dutch, Finnish, Portuguese, Norwegian, Swedish, Danish and Greek.

* Users in the UK and Switzerland can not set the outgoing message to OFF.

What Happens When the FAX/TEL AUTO SW is Selected

















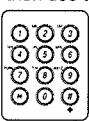









Not all fax machines are capable of sending a FAX TONE. For those cases if you set the F/T SW ACTION to RECEIVE, the fax switches to receive mode automatically and starts receiving the document. If no document comes in it disconnects after approximately 35 seconds.

* When you set the outgoing message to ON. (Users in the UK and Switzerland can not set the outgoing message to OFF.)

You select these options in the RX MODE submenu of the RECEIVE (RX) SETUP menu when the FAX/TEL AUTO SW is selected. See below to change the settings.

Three Ways to Receive a Fax

Set these options as follows:

- | ACTION | DISPLAY | | |
|---|---|------------------------------|---------------------------------|
| 1
  | DATA REGISTRATION
1.SPEED DIAL SETUP | | |
| 2
Use the search buttons to display 5. RECEIVE (RX) SETUP.
  | DATA REGISTRATION
5.RECEIVE(RX) SETUP | | |
| 3
Press SET , then use the search buttons to display 2. RX MODE.
   | RECEIVE (RX) SETUP
2.RX MODE | | |
| 4
Press SET , then use the search buttons to display FAX/TEL AUTO SW.
   | RX MODE
FAX/TEL AUTO SW | | |
| 5
Press SET , then use the search buttons to display 1. F/T RING TIME: this is how many seconds the fax rings while waiting for someone to pick up the handset.
   | FAX/TEL AUTO SW
1.F/T RING TIME | | |
| 6
Press SET , then use the numeric buttons to enter a time from 10 to 45 seconds.
  Ex:    | F/T RING TIME
015SEC | | |
| 7
Press SET , then use the search buttons to display 2. F/T SWITCH ACTION: this tells the fax what to do if no one picks up the handset within the specified ring time.
   | FAX/TEL AUTO SW
2.F/T SWITCH ACTION | | |
| 8
Press SET , then use the search buttons to display the setting you want.
   | <ul style="list-style-type: none"> Choose RECEIVE to receive the call: <table border="1"> <tr> <td>F/T SWITCH ACTION
RECEIVE</td> </tr> </table> Choose DISCONNECT to disconnect the call: <table border="1"> <tr> <td>F/T SWITCH ACTION
DISCONNECT</td> </tr> </table> | F/T SWITCH ACTION
RECEIVE | F/T SWITCH ACTION
DISCONNECT |
| F/T SWITCH ACTION
RECEIVE | | | |
| F/T SWITCH ACTION
DISCONNECT | | | |

9Press **SET**, then use the search buttons to display 3. OUTGOING MESSAGE.

- This allows you to send an electronic voice message to the other party's fax when you receive a call: "You are connected. Please hold."
- * Users in the UK and Switzerland can not set the outgoing message to off. After completing this step, go to step 11.

10Press **SET**, then use the search buttons to display ON.**11**Press **SET**, then use the search buttons to select the first language of the message.

- With a choice of 12 languages, you can select one or two languages for the message. Your choices are: English, French, Spanish, German, Italian, Dutch, Finnish, Portuguese, Norwegian, Swedish, Danish, and Greek.

12Press **SET**. If you want to select a second language for the message, use the search buttons to select it.**13**Press **SET**, then press **STOP** to return to standby mode.

Manual Receiving

For manual receiving, you need to have the optional handset installed or an extension telephone connected.

When the fax is set for manual receiving, it rings every time it receives a call, whether the call is from a telephone or a fax machine.

When the optional handset or extension telephone rings:

1

Pick up the handset:

- If you hear a slow, high-pitched beep, you are receiving a fax call. Go to the next step.
- If you hear someone on the line, you are receiving a regular phone call. If the caller later wants to send a fax, go to step 2 when you hear the slow beep.

2

Optional handset: Press **START/COPY** on the operation panel to start receiving the fax.

Extension telephone: Enter 25 using the telephone's keypad. This is the remote receiving ID.

- While the fax is coming in, the display shows a transaction number (a unique number used to identify the fax) and the sender's name. See "Messages Displayed While Receiving a Fax" below, and "Display Messages and Meanings" in Part 8.
- See Appendix A, "The Menu System" for instructions on how to change the remote receiving ID or turn it off. (→p. A-9)

3

Replace the handset in its cradle.

If the fax's handset is not properly seated, the off-hook alarm will sound and the fax will not be received. The alarm stops when the handset is placed correctly in its cradle.

Using the Fax with an Answering Machine

1

Press the **ANS HOOK UP/MANUAL** button until the **ANS HOOK UP** lamp goes on.

ANS HOOK UP 
MANUAL 



2

Set your answering machine to answer.

- The fax allows the answering machine to answer, then listens for a fax tone, and switches to receive mode automatically if it detects the tone.
- The fax also listens for 5 seconds of silence, also an indication that a fax is coming in. After 5 seconds of silence, the fax automatically switches to receive mode.
- If the fax runs out of paper or toner, it receives the document and stores it in memory. To print out documents in memory, see page 5-21.

3

When not in use, turn the answering machine off and switch the mode to Manual receive (MANUAL lamp on) or Automatic receive (both the ANS HOOK UP and MANUAL lamps off) using the **ANS HOOK UP/MANUAL** button.

Adjusting the Fax for Different Types of Answering Machines

Some answering machines listen for a pause and disconnect the line after a certain period of silence. When used with an answering machine, your fax also listens for a pause to determine if a fax is being received.

If your answering machine disconnects before the fax has a chance to switch to receive mode, the caller may not be able to send a fax on the same call.

If you experience this problem, adjust the **ANS/FAX SW TIME** setting in the **RECEIVE (RX) SETUP**, (→p. A-8). Adjust so that the required time for the fax to switch occurs prior to the time when your answering machine disconnects automatically.

Using an Answering Machine

Connecting an answering machine to the fax allows you to receive not only documents sent from other fax machines, but also messages from people calling when you are out of the office. When the fax is connected to an answering machine, all incoming calls are first directed to the answering machine. If the call is from a person, the caller can leave a message. If the call is from a fax machine, your fax receives the document automatically. See Part 2, "Making Connections" for instruction on how to connect the answering machine to the fax.



We do not recommend the use of an "Answering Service" (like those offered by local telephone companies that provide voice mail) on the telephone line you are connecting to the fax. If you do subscribe to an "Answering Service" we suggest that you dedicate a different telephone line to be used for fax communication only and connect that telephone line to the fax.

Recording the Outgoing Message

When recording a message...

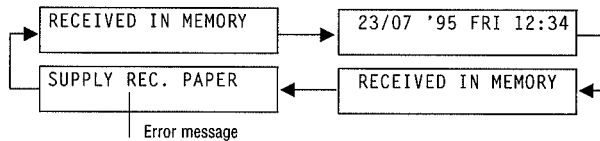
- Try to keep your message to less than 15 seconds long.
- In the message tell your callers how to send a fax.
 - Here's a sample message:
"Hello. I'm not in the office right now, but please leave a message after the beep. I'll return your call as soon as possible. If you would like to send a fax, press the start button on your fax after recording your message. Thank you."
- Leave a 4-second pause at the beginning of the message (the 4-second pause plus the outgoing message should not exceed a total of 15 seconds).
- Set the answering machine to answer on the first or second ring.

Receiving Documents in Memory

When the fax unit is receiving a fax, it automatically stores unprinted pages in memory if:

- the fax runs out of paper.
- the fax runs out of toner.
- there is no toner cartridge installed.
- the paper size specified in the FAX PRINTER SETUP is different to the paper size in the paper cassette.
- a paper jam has occurred.
- the message OUTPUT TRAY FULL is displayed.

The fax displays the following messages telling you which of the above has occurred:



Error messages

- REPLACE CARTRIDGE (→p. 2-17)
 SUPPLY REC. PAPER (→p. 2-22)
 INSTALL CARTRIDGE (→p. 2-17)
 CHECK PAPER SIZE (→p. A-10)
 REC. PAPER JAM (→p. 8-3)

You need to solve the problem before the fax automatically prints the received fax in memory (see below).

Printing a Fax from Memory



If power to the fax is cut off, any faxes stored in its fax memory will be saved for approximately an hour. If the power failure lasts longer than an hour, the stored faxes will be lost.

Once you have solved the problem indicated by the error message above, the fax will automatically print the unprinted pages stored in memory.

The fax's memory can store up to 42 A4-size pages. If the memory fills up before a fax is completely received, the remaining pages of the fax will be lost and must be resent.



With the optional 2 MB memory board installed, you can increase the fax's memory to store up to 138 pages.

Messages Displayed While Receiving a Fax

The messages shown below normally appear while the fax is receiving a fax.

Receiving a transmission

23/07 '95 FRI 12:34
RECEIVE P.001

Page no. |

Transaction number

23/07 '95 FRI 12:34
TX/RX NO. 5678

During receiving, the following are displayed alternately:

- Condition (RECEIVING)
- Other party's telephone No. (may not be displayed)
- Other party's name (may not be displayed)
- Receiving mode (G3)
- ECM RX (in ECM)
- TX/RX No.
- Page No.

When the document has been received, the following are displayed before the fax returns to standby mode:

- Reception result (RECEPTION OK or an error message)
- TX/RX No.

The fax will print a reception report (RX Report) if it has been set to do so.
(→p. 6-6, A-5)

How to Cancel an Incoming Fax

To cancel an incoming fax:

ACTION

DISPLAY

1

Press **STOP**.



<p>CANCEL DURING TX/RX? YES=(*) NO=(#)</p>

2

Press * to cancel, or # to resume receiving the fax.



or



Special Features

Part




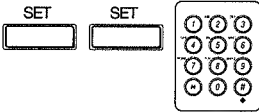
5

This section describes the fax's speed dialling, group dialling, and special dialling features, along with its memory, copying, and polling functions.

Speed Dialling

Your Canon fax can store up to 120 phone numbers: up to 20 of your most frequently used numbers can be stored for One-Touch Speed Dialling, and an additional 100 numbers can be stored for Coded Speed Dialling.

Storing Numbers for One-Touch Speed Dialling

- | ACTION | DISPLAY |
|--|---|
| 1
 | DATA REGISTRATION
1.SPEED DIAL SETUP |
| 2
Press SET twice.
 | 1-TOUCH SPD DIAL
01= |
| 3
Use the search buttons to select a One-Touch Speed Dialling button between 01 and 20.
 | 1-TOUCH SPD DIAL
07= |
| <ul style="list-style-type: none">• You can also do this by pressing FUNCTION, then pressing the One-Touch Speed Dialling button, then pressing FUNCTION again.• If a number is already stored at the button you select, that number appears.• If the button you select is registered for Group Dialling, GROUP DIAL appears. | |
| 4
Press SET twice. Use the numeric buttons to enter the fax number you want to store.
 | TELEPHONE NUMBER
TEL= |
| <ul style="list-style-type: none">• Press SPACE to enter spaces between numbers. (Spaces are optional and are ignored during dialling.)• If you want to clear a number or a mistaken entry, press CLEAR.• To enter a pause in the number, press PAUSE one or more times. {EC}• To enter a pause in the number, press PAUSE once. {UK} | |

5

Press **SET** twice, then use the numeric buttons to store the name that goes with the number. (See page 2-29 for details on entering letters.)

SET	SET		Ex: CANON INC	NAME	:A
<input type="text"/>	<input type="text"/>			CANON INC	

6

Press **SET**.

SET	1-TOUCH SPD DIAL
<input type="text"/>	3.OPTIONAL SETTING

7

To adjust the transmission settings, press **SET** and follow the instructions on page 5-11.

SET	OPTIONAL SETTING
<input type="text"/>	OFF

-or-

To continue registering more numbers and names for One-Touch Speed Dialling, press **DATA REGISTRATION**.

DATA REGISTRATION	1-TOUCH SPD DIAL
<input type="text"/>	08-

8

When you are finished registering numbers and names, press **STOP** to return to standby mode.



23/07 '95 FRI 12:34

Using One-Touch Speed Dialling

1

Place the document face down on the fax, and gently insert it into the automatic document feeder (ADF) until you hear a beep.



2

Press the desired One-Touch Speed Dialling button.

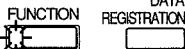

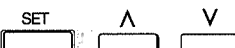
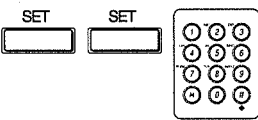
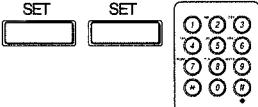
Here are some important points about One-Touch Speed Dialling:

- If you make a mistake, or want to cancel the dialling, press **⏏ (STOP)**.
- You can select up to 20 One-Touch Speed Dialling buttons in a row. The fax will automatically be sent to the numbers you select. (You can also include Coded Speed Dial numbers.)
- After you press a One-Touch Speed Dialling button, the fax will start scanning in five seconds, even if you don't press **⏏ (START/COPY)** (ten seconds if you press more than one One-Touch Speed Dialling button). So if you want to send to multiple destinations, be sure to press the second One-Touch Speed Dialling button within five seconds after pressing the first, and press any subsequent buttons within ten seconds.
- If you don't first place the document into the automatic document feeder (ADF), the fax will display SET DOCUMENT.
- If no number is stored under the button you press, the fax will display NO TEL #.



When using One-Touch Speed Dialling, make sure the FUNCTION lamp is off.

Storing Numbers for Coded Speed Dialling

- | ACTION | DISPLAY |
|---|---|
| 1
 | DATA REGISTRATION
1.SPEED DIAL SETUP |
| 2
Press SET . Use the search buttons to display 2. CODED SPD DIAL.
 | SPEED DIAL SETUP
2.CODED SPD DIAL |
| 3
Press SET . Use the search buttons to select a two-digit code (00–99) in the display. If a number is already stored for the code you select, that number appears.
 | CODED SPD DIAL
★00= |
| <ul style="list-style-type: none"> • If a number is already stored at the code you select, that number appears. • If the code you select is registered for Group Dialling, GROUP DIAL appears. | |
| 4
Press SET twice, then use the numeric buttons to enter the fax number you want to store.
 | TELEPHONE NUMBER
TEL= |
| <ul style="list-style-type: none"> • Press SPACE to enter spaces between numbers. (Spaces are optional and are ignored during dialling.) • If you want to clear a number or a mistaken entry, press CLEAR. • To enter a pause in the number, press PAUSE one or more times. {EC} • To enter a pause in the number, press PAUSE once. {UK} | |
| 5
Press SET twice, then use the numeric buttons to store the name that goes with the number. (See page 2-29 for details on entering letters.)
 | Ex: CANON INC
NAME
CANON INC :A |

6

Press **SET**.



CODED SPD DIAL
3.OPTIONAL SETTING

7

To adjust the transmission settings, press **SET** and follow the instructions on page 5-11.



OPTIONAL SETTING
OFF

-or-

To continue registering more numbers and names for Coded Speed Dialling, press **DATA REGISTRATION**.



CODED SPD DIAL
★01=

8

When you are finished registering numbers and names, press **STOP** to return to standby mode.



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You may want to make a list of the numbers and names you store under the Coded Speed Dial codes, and post the list near the fax.

Using Coded Speed Dialling

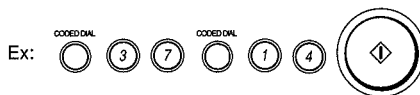
1

Place the document face down on the fax, and gently insert it into the automatic document feeder (ADF) until you hear a beep.





2

Press **CODED DIAL** and use the numeric buttons to enter the desired two-digit code (00–99). (You can enter several codes in a row by pressing **CODED DIAL** between each code.) Then press **START/COPY**.













Here are some important points about Coded Speed Dialling:

- If you make a mistake, or want to cancel the dialling, press  (**STOP**).
- You can enter multiple Coded Speed Dial codes. The fax will automatically be sent to the numbers you selected in the order in which you selected them. (You can also include 20 One-Touch Speed Dialling buttons.)
- Once you enter a two-digit code, the fax will start scanning in five seconds, even if you don't press  (**START/COPY**) (ten seconds if you enter multiple codes). So if you want to send to multiple destinations, be sure to enter the second Coded Speed Dialling code within five seconds after entering the first, and subsequent codes within ten seconds.
- If you don't first place the document into the automatic document feeder (ADF), the fax will display **SET DOCUMENT**.
- If no number is stored under the button you press, the fax will display **NO TEL #**.

Creating Groups for Group Dialling

Group Dialling lets you send a fax to a group of destinations with the press of a single button. The numbers you use in groups must already be stored in One-Touch Speed Dialling buttons or Coded Speed Dialling codes. Each group is stored under a One-Touch Speed Dialling button or a Coded Speed Dialling Code.

Create groups for Group Dialling as follows:

- | | ACTION | DISPLAY |
|---|---|--|
| 1 | <div> <div>FUNCTION</div> <div></div> </div> <div> <div>DATA</div> <div>REGISTRATION</div> <div></div> </div> | <div>DATA REGISTRATION</div> <div>1.SPEED DIAL SETUP</div> |
| 2 | Press SET , then use the search buttons to display 3. GROUP DIAL.
<div> <div>SET</div> <div></div> <div></div> </div> | <div>TEL REGISTRATION</div> <div>3.GROUP DIAL</div> |
| 3 | Press SET .
<div> <div>SET</div> <div></div> </div> | |
| 4 | To store a group under a One-Touch Speed Dialling button: Use the search buttons to select an unused One-Touch Speed Dial button code (01 to 20). If a group or number is already stored in the button you select, 1-TOUCH SPD DIAL or GROUP DIAL is displayed.
<div> <div></div> <div></div> </div> | <div>GROUP DIAL</div> <div>01=</div> |
| | -or-
To store a group under a Coded Speed Dialling Code:
Press CODED DIAL , then enter an unused two-digit code (01 to 99). If a group or number is already stored in the code you select, CODED SPD DIAL or GROUP DIAL is displayed.
Ex: <div> <div>CODED DIAL</div> <div></div> <div></div> <div></div> </div> | <div>GROUP DIAL</div> <div>★07=</div> |



Each One-Touch Speed Dial button or Coded Speed Dial code can store either a name and number for speed dialling or a group. Be careful not to override speed dial names and numbers when creating and storing groups.

5

Press **SET** twice, then use the One-Touch Speed Dial buttons or the **CODED DIAL** button to enter the numbers you want to store in the group.



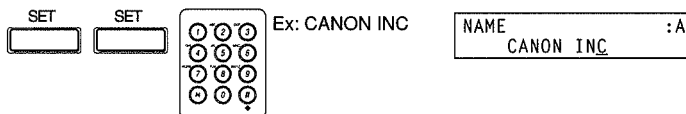
- If you want to enter a number that is already stored in a One-Touch Speed Dialling button, press **FUNCTION** (the FUNCTION lamp goes off), press the desired one-touch button(s), and press **FUNCTION** again (the FUNCTION lamp goes on).
- If you want to enter a number that is already stored in a Coded Speed Dialling code, press **CODED DIAL**, then enter the two-digit code for the number. (Press **CODED DIAL** between each entry.)



You can not register numbers in the group that have not been registered for Speed Dialling.

6

Press **SET** twice, then use the numeric buttons to enter a name for the group. (See page 2-29 for details on entering letters.)

**7**

Press **SET**.



To enter additional groups, use the search buttons to select additional One-Touch Speed Dial button codes, then repeat the above procedure starting with step 3. When you finish, press **STOP** to return to standby mode.

Using Group Dialling

1

Place the document face down on the fax, and gently insert it into the automatic document feeder (ADF) until you hear a beep.





2

Press the desired One-Touch Speed Dialling button(s) or enter the Coded Speed Dialling code(s), then press **START/COPY**.



Here are some important points about Group Dialling:

- If you make a mistake, or want to cancel the dialling, press  (**STOP**).
- You can select several groups in a row. The fax will be sent to all the numbers you select in the order you select them. You can also include numbers stored for One-Touch Dialling or Coded Speed Dialling.
- Once you select a group, the fax will start scanning in five seconds, even if you don't press  (**START/COPY**) (ten seconds if you enter multiple codes). So if you want to send to multiple destinations, be sure to press the second Group Dialling, Coded Dialling, or One-Touch Speed Dialling button within five seconds after pressing the first, and press any subsequent buttons within ten seconds.
- If you don't place the document into the automatic document feeder (ADF), the fax will display SET DOCUMENT.
- The fax can detect if a number is registered more than once (One-Touch Speed Dialling button no.10, for example), and sends the document once only to that number.
- The TX TYPE set in One-Touch Speed Dialling buttons or Coded Speed Dialling codes remain effective when registered in a group.
- The TX TYPE feature can not be set in Group Dialling.

Adjusting the Transmission Settings

When you register a number for One-Touch Speed Dialling or Coded Speed Dialling, you can also set the transmission time, transmission type, long distance setting, and the transmission speed.

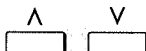
Before you can set any of the transmission settings, you need to turn the **OPTIONAL SETTING** on. Follow the procedure below after completing step 7 on page 5-3 (One-Touch Speed Dialling) or page 5-6 (Coded Speed Dialling).

ACTION

DISPLAY

1

Use the search buttons to display ON.



OPTIONAL SETTING
ON

2

Press **SET**.



OPTIONAL SETTING
1.SET TIME

■ Setting the Transmission Time

Use this procedure to set the transmission time for a One-Touch Speed Dialling button or a Coded Seed Dialling code.

Make sure the **OPTIONAL SETTING** is on (see above) before following the procedure below.

ACTION

DISPLAY

1

Use the search buttons to display 1. SET TIME.

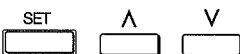


OPTIONAL SETTING
1.SET TIME

2

Press **SET**, then use the search buttons to select a line.

- You can set 1 to 5 settings for the transmission time. The procedure is the same for all settings.



Ex: Setting 2

SET TIME
2: : :

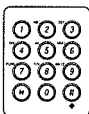


To clear a time setting, press **CLEAR**. If you clear all settings, the document will not be sent at a set time.

3

Press **SET**, then use the numeric buttons to enter the starting time.

- Use the 24-hour system to set the time.



Ex: 0 2 1 5

SET TIME
2: 02:15

4

Press **SET**.



SET TIME
3: :

5

To continue registering other features for the same number press **DATA REGISTRATION**.



OPTIONAL SETTING
2.TX TYPE

- You do not need to press **DATA REGISTRATION** if the last time setting you set was 5.

—or—

If you are finished, press **STOP** to return to standby mode.



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■ Setting the Transmission Type

Use the expanded transmission feature to set up sending with subaddress and Password for a One-Touch Speed Dialling button or a Coded Speed Dialling code.

Make sure the **OPTIONAL SETTING** is on (→p. 5-11) before following the procedure below.

ACTION

DISPLAY

1

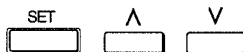
Use the search buttons to display 2. TX TYPE.



OPTIONAL SETTING
2.TX TYPE

2

Press **SET**, then use the search buttons to display the setting you want to use.



TX TYPE
REGULAR TX

TX TYPE
PSWD/SUBADDRESS

Use the **REGULAR TX** setting to turn off a subaddress/password setting if one has been set up.

Sending with a Subaddress and Password

With the **PASSWORD/SUBADDRESS** feature, you can send documents with a registered subaddress or password based on the ITU-T standard so that documents transmitted without the corresponding subaddress or password will not be received. To send a document with the **PASSWORD/SUBADDRESS** feature, it is necessary that the subaddress or the password of the document you wish to send is identical to the subaddress or password of the other fax to which the document is to be transmitted to.

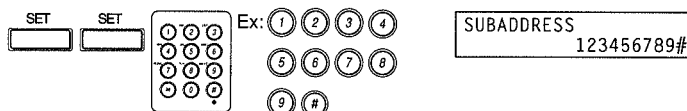
When sending a document using this feature, it is necessary for the receiving party's fax machine to have the same function for receiving. If using a Canon fax machine, the "Memory Box" feature is suitable for this.

The PASSWORD/SUBADDRESS feature may differ depending on the receiving fax machine's settings. When using this feature, check with the other party on how they are using the PASSWORD, SUBADDRESS, and "Memory Box" features before sending a document.

Follow this procedure to set the subaddress and the password for a One-Touch Speed Dialling button or a Coded Speed Dialling code. To set the subaddress and password, display PSWD/SUBADDRESS.

3

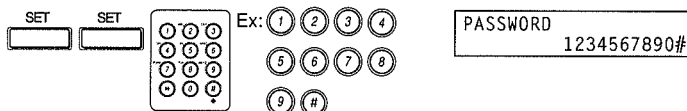
Press **SET** twice, then use the numeric buttons to enter the subaddress.



- You can enter numbers, an asterisk *, a sharp (#), or spaces up to 20 digits.
- If you wish not to register a subaddress, press **SET**.
- If you make a mistake and want to enter again, press **CLEAR**.

4

Press **SET** twice, then use the numeric buttons to enter a TX password.



- You can enter numbers, an asterisk *, a sharp (#), or spaces up to 20 digits.
- If you wish not to register a password, press **SET**.
- If you make a mistake and want to enter again, press **CLEAR**.

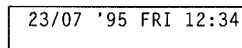
5

Press **SET**.



6

If you are finished, press **STOP** to return to standby mode.



■ Changing the Long Distance Setting

Use this procedure to change the long distance setting for a One-Touch Speed Dialling button or a Coded Seed Dialling code. Change this setting if you are getting transmission errors when you send documents long distance.

Make sure the OPTIONAL SETTING is on (→p. 5-11) before following the procedure below.

ACTION	DISPLAY
1 Use the search buttons to display 3. LONG DISTANCE. <div><div>Λ</div><div>V</div><div></div><div></div></div>	<div>OPTIONAL SETTING 3.LONG DISTANCE</div>
2 Press SET , then use the search buttons to change the setting. <div><div>SET</div><div>Λ</div><div>V</div><div></div><div></div><div></div></div>	<div>LONG DISTANCE DOMESTIC</div>
Select (1), then try to send your document.	<div>LONG DISTANCE LONG DISTANCE(1)</div>
If the setting (1) does not solve the problem, try setting (2) and (3).	<div>LONG DISTANCE LONG DISTANCE(2)</div>
	<div>LONG DISTANCE LONG DISTANCE(3)</div>
3 Press SET . <div><div>SET</div><div></div></div>	<div>OPTIONAL SETTING 4.TX SPEED</div>
4 If you are finished, press STOP to return to standby mode. <div><div></div></div>	<div>23/07 '95 FRI 12:34</div>

■ Setting the Transmission Speed

Use this procedure to change the transmission speed for a One-Touch Speed Dialling button or a Coded Seed Dialling code. Change the speed when it takes a long time for your document transmissions to begin.

Make sure the **OPTIONAL SETTING** is on (→p. 5-11) before following the procedure below.

ACTION

DISPLAY

1

Use the search buttons to display 4. TX SPEED.



OPTIONAL SETTING
4. TX SPEED

2

Press **SET**, then use the search buttons to change the speed setting.



TX SPEED 14400bps

- If it takes a long time for your document transmissions to begin, this may mean that the telephone lines in your area are in poor condition. If you experience this problem, change the transmission speed from 14400 to 9600 bps or 4800 bps.

TX SPEED 9600bps

TX SPEED 4800bps

3

Press **SET**.



4

To continue registering other speed dial numbers and names, continue with the procedure from step 2 on page 5-2 (One-Touch Speed Dialling) or page 5-5 (Coded Speed Dialling).

—or—

If you are finished, press **STOP** to return to standby mode.



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Sending to More Than One Location

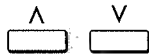
In addition to Group Dialling, you can use One-Touch Speed Dialling, Coded Speed Dialling, and manual dialling to send a fax to multiple destinations.

- 1 Place the document face down on the automatic document feeder (ADF), and gently insert it until it stops.



- 2 Enter the numbers you want to send the fax to. You can do this by pressing One-Touch Speed Dialling buttons, pressing **CODED DIAL** and entering Coded Speed Dial codes, or entering numbers manually using the numeric buttons (one location only), in any combination. (Press **SET** after the number you have entered manually and press **CODED DIAL** between each Coded Speed Dialling entry.)

- 3 If you want to review the numbers you entered, press **FUNCTION** and use the search buttons. You can clear a displayed number from the list by pressing **SET**, then **CLEAR**.



- 4 Press **START/COPY** to send the fax or wait 10 seconds and the fax will begin scanning automatically.



The numbers you entered are dialled in this order: Coded Speed Dialling, One-Touch Speed Dialling, then manual dialling.

If you find that you frequently send faxes to the same numbers, you can save time by creating a group containing those numbers and using Group Dialling.



If **MEMORY FULL** is displayed while the document is being scanned, do the following:

- If the message appears while the fax is scanning a one-page document, you can not send it to several locations. Send the document to one location at a time.
- If the message appears after scanning some pages of a multipage document, divide the document into several parts and send each part separately to the locations you have selected.

Sending a Fax Later

The fax lets you scan a fax into its memory and send it sometime later. This lets you take advantage of lower long-distance rates at night, for example.

ACTION

DISPLAY

1

Place the document face down on the automatic document feeder (ADF), and gently insert it until it stops.



2

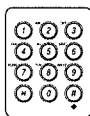
Press **FUNCTION**, then **DELAYED TRANSMISSION**, and then **SET**. (The current time is displayed.)



DELAYED TX	
SET TIME	01:40

3

Use the numeric buttons to enter the time at which you want to send the fax. (Enter the time in 24-hour form: 10:00 p.m. would be 22:00, for example).



Ex: 2 1 4 0

DELAYED TX	
SET TIME	21:40

4

Press **SET**.



TEL=	
------	--

5

Enter the number or numbers you want to send to. You can do this by pressing One-Touch Speed Dialling buttons (with the **FUNCTION** lamp off), pressing **CODED DIAL** and entering Coded Speed Dial codes, or entering numbers manually using the numeric buttons (one location only), in any combination. (Press **SET** after the number you entered manually and press **CODED DIAL** between each Coded Speed Dialling entry.)

6

Press **SET**.



If **MEMORY FULL** is displayed while the document is being scanned, the fax can not be sent later.

Special Dialling

In this section, we'll explain some special dialling features like dialling through a switchboard, and dialling international numbers.

Dialling Through a Switchboard

A PBX (private branch exchange) is an on-site telephone switchboard.

- If your fax is connected through a switchboard, dial the outside line number first. Then dial the rest of the number.
- If you want to dial with automatic dialling, you may have to insert a pause between the outside line number and the telephone number when you register the number for One-Touch (→p. 5-2) or Coded Speed Dialling (→p. 5-5).
- When you have to make calls to an extension, you may have to press the **R** {UK, ECG} **I. P.** {ECF} button before you dial the extension number. Before you can use the **R** {UK, ECG} **I. P.** {ECF} button, you have to register it (→p. A-3, 11. R-KEY SETTING).

Long Distance Dialling

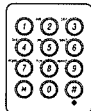
When you register a long distance number, you may have to insert a pause either within or after the number. For long distance dialling, the location and length of the pause may differ depending on the telephone system.

How to Enter Pauses

Use this procedure to enter pauses within or at the end of numbers.

1

During dialling registration, when you come to a step that asks you to enter a number for dialling, use the numeric buttons to enter the number.



TELEPHONE NUMBER	
TEL=	03

2

To enter a pause within a number, make sure the **FUNCTION** lamp is on, then press **PAUSE**.

PAUSE



{EC}

TELEPHONE NUMBER
TEL= 03PP37579448P

{UK}

TELEPHONE NUMBER
TEL= 03P37579448P

- To enter a pause at the end of a number, press **PAUSE** and press **SET**.
- A pause entered within a number is two {EC} four {UK} seconds long.
- If necessary, you can adjust the length of a pause within a number.
(→p. A-7) {EC}
- To make a longer pause within a number, press **PAUSE** again. Each pause adds two seconds to the length of the pause. {EC}
- You can not enter continuous pauses. If necessary, adjust the length of a pause within a number. (→p. A-7) {UK}
- A pause at the end of a number is ten seconds long.

Confirming a Dial Tone

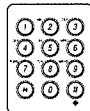
Use this feature only when you register a number. In some areas you may have to confirm the dial tone in the middle of the facsimile number before dialling the rest of the number. This is called dial tone detection.

ACTION

DISPLAY

1

Use the numeric buttons to enter the first part of the number until dial tone detection is required.



TELEPHONE NUMBER
TEL= 348

2

When a dial tone detection is required, make sure the **FUNCTION** lamp is on, then press the **D.T.** button.

D.T.

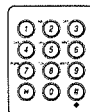


TELEPHONE NUMBER
TEL= 348.

- Where the dial tone is inserted, you will see a small dot. During dialling this is where the fax waits for the dial tone.

3

Enter the remainder of the number.



TELEPHONE NUMBER
TEL= 348.2121

Using Memory

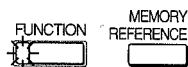
Deleting a Stored Fax from Memory

ACTION

DISPLAY

1

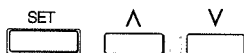
Press **FUNCTION**, then **MEMORY REFERENCE**.



MEMORY REFERENCE
1.DELETE DOCUMENT

2

Press **SET**, then use the search buttons to select the TX/RX number of the fax you want to delete.



DELETE DOCUMENT
TX/RX NO. 0002

3

Press **SET**, then press * to delete the fax or # to cancel.



OK TO DELETE?
YES=(*) NO=(#)

4

Press **STOP** to return to standby mode.



Resending a Document that Encountered an Error Signal

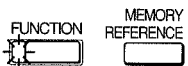
If you get an error signal when sending a fax from memory, you can try resending it to the same destination without having to scan it again.

ACTION

DISPLAY

1

Press **FUNCTION**, then **MEMORY REFERENCE**.



MEMORY REFERENCE
1.DELETE DOCUMENT

2

Use the search buttons to display 2. MEM. RETRANSMIT.



MEMORY REFERENCE
2.MEM. RETRANSMIT

3

Press **SET**, then use the search buttons to select the TX/RX number of the fax you want to resend.



MEM. TRANSMIT
RX/TX NO. 0002

4

Press **SET**.



- This function can only be used when the ERASE FAILED TX setting in the SEND (TX) SETUP menu is set to OFF. (The default setting is ON). See page A-6, for details on changing the setting.
- The fax is erased from memory after it is sent.

Printing a List of the Documents in Memory

The fax can print out a list of any faxes it has stored in memory, along with the transaction (TX/RX) number of each. Once you know the transaction number of a fax in memory, you can print the fax, send it to another location, or delete it.

ACTION

DISPLAY

1

Press **FUNCTION**, then **MEMORY REFERENCE**.



MEMORY REFERENCE
1.DELETE DOCUMENT

2

Use the search buttons to select 3. DOC. MEMORY LIST, then press **SET** to print the list.



MEMORY REFERENCE
3.DOC. MEMORY LIST

PRINTING REPORT

17/02 '96 SAT 00:56 FAX 31 20 545 8264				CANON EUROPA		0001

* DOC. MEMORY LIST *						

TX/RX NO		MODE	CONNECTION TEL/ID	PGS.	SET TIME	ST. TIME
0001		DELAYED TX	6566	2	16/02 01:03	01:03
0003		DELAYED TX	865	18	16/02 01:04	01:04
0014		TRANSMIT	05458261	1	16/02 01:18	-----
0042		TRANSMIT	8261	1	17/02 00:16	-----
0043		TRANSMIT	8261	1	17/02 00:19	-----

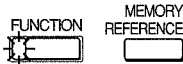
Printing a Stored Fax

ACTION

DISPLAY

1

Press **FUNCTION**, then **MEMORY REFERENCE**.



MEMORY REFERENCE
1.DELETE DOCUMENT

2

Use the search buttons to select 4. PRINT DOCUMENT.



MEMORY REFERENCE
4.PRINT DOCUMENT

3

Press **SET**, then use the search buttons to select the TX/RX number of the fax you want to print.



PRINT DOCUMENT
TX/RX NO. 0002

- 4** Press **SET**; then press ***** to print the first page of the fax, or **#** to print the entire fax.



PRINT 1ST PG ONLY?
YES=(*) NO=(#)

TX/RX NO. 0002
PRINTING P.001/001

- 5** Press **STOP** to return to standby mode.



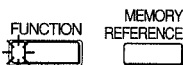
Sending a Stored Fax to Another Destination

Faxes stored in memory can easily be sent out again. If you get an error or busy signal when sending a fax from memory, for example, you can send it to another destination without having to scan it again. Also, faxes the unit receives into memory can be sent to another location.

ACTION

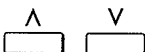
DISPLAY

- 1** Press **FUNCTION**, then **MEMORY REFERENCE**.



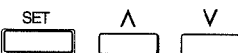
MEMORY REFERENCE
1.DELETE DOCUMENT

- 2** Use the search buttons to select 5. MEMORY TX.



MEMORY REFERENCE
5.MEMORY TX

- 3** Press **SET**, then use the search buttons to select the TX/RX number of the fax you want to resend.



MEMORY TX
TX/RX NO. 0002

- 4** Press **SET**, then enter the number or numbers you want to send to. You can do this by pressing One-Touch Speed Dialling buttons (with the FUNCTION lamp off), pressing **CODED DIAL** and entering Coded Speed Dial codes, or entering numbers manually using the numeric buttons (one location only), in any combination. (Press **SET** after the number you entered manually and **CODED DIAL** between each Coded Speed Dial code.)

- 5** Press **SET** twice.



The fax is erased from memory after it is sent.

If the Power Goes Out...

The fax includes a built-in lithium battery and a backup battery for use in case power to the fax is cut off.

The lithium battery has a life of about five years and will save the fax's registered data for One-Touch Speed Dialling, Coded Speed Dialling, Group Dialling, etc.

However, the backup battery will only save the documents stored in memory for approximately one hour. If the power failure lasts longer than an hour, the stored documents will be lost (in this case, the fax automatically prints a list of the lost documents when power is restored).

During a Power Failure

While power is out, you can only use the fax to receive telephone calls. You can not make calls, nor send or receive faxes.

Memory Backup Function

To make the best use of the fax's memory backup, avoid turning the fax off unless absolutely necessary. The backup battery recharges while the fax is powered on, and takes 15 minutes to recharge fully.

Making Copies

You can use the fax to make one or more copies of your document, as follows.

ACTION

DISPLAY

1

Place the document face down on the automatic document feeder (ADF), and gently insert it until it stops.



2

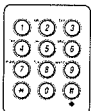
Press **START/COPY**.



COPY	
COPY PAGE	01

3

If you want to make more than one copy, use the numeric buttons to enter the number of copies you want (up to 99).




Ex: 2

COPY	
COPY PAGE	02

To make a single copy, leave COPY PAGE set to 01.
The resolution is always set to FINE.

4

Press **START/COPY**. If you change your mind, press  (**STOP**).



COPY	
------	--



- You may prefer to use face-up delivery if you are making a large number of copies. See "Selecting Paper Delivery" in Part 2 for more details.
- If MEMORY FULL is displayed while making multiple copies of a document, change the COPY PAGE setting to 01 and make single copies instead (as many times as required).
- When making copies, the AUTO HALFTONE setting is set to ON.

Polling to Receive Faxes

The fax's polling feature allows you to request a fax to be sent from another fax machine. The sender only needs to make sure the document is on the fax machine and ready to be sent: when the fax polls that machine, the fax is sent automatically. The fax can poll any fax machine that supports polling. (This process doesn't work in reverse, however: the fax can not be polled by other fax machines.)

Polling a Fax Machine

To poll another fax machine and receive a fax from it, do the following:

ACTION

DISPLAY

1

Press **FUNCTION**, then **POLLING**.



POLLING RX
1.SELECT LOCATIONS

2

Press **SET**.



TEL=

3

Enter the fax number or numbers to poll. You can do this by pressing One-Touch Speed Dialling buttons (with the **FUNCTION** lamp off), pressing **CODED DIAL** and entering Coded Speed Dial codes, or entering numbers manually using the numeric buttons (one location only), in any combination. (Press **SET** after the number you entered manually and press **CODED DIAL** between each Coded Speed Dialling entry.)

4

Press **START/COPY** and the fax will start to poll automatically.



The fax then begins to receive the fax.

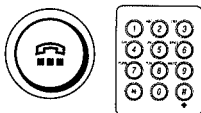


If the sender is using a Canon fax machine, ask him to set the polling ID of his fax to 255 (1111 1111 binary number).
For details on the polling ID, refer to the sender's fax machine manual.

Using Tone Dialling on a Pulse Line

Even if you have a pulse line, the fax enables you to use tone dialling once you've connected to the number you're calling. This lets you take advantage of many services that require tones, such as selecting options from telephone "touch-line" services.

- 1** Press **HOOK** or pick up the handset, then dial the number using the numeric buttons. The fax connects using the pulses required by your phone line.



- 2** Press **FUNCTION**, then press **TONE/+** to switch to tone dialling.



- 3** When you're done, press **HOOK** or hang up the handset.














When registering One-Touch Speed Dialling and Coded Speed Dialling numbers, you can also switch to tone dialling.

Use of LOCK PHONE Feature

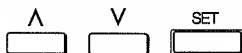
If you don't want unauthorised people using your Fax-L300 to make calls (with the optional handset or extension telephone) and running up your telephone bill when the office is closed, set LOCK PHONE to ON. When this feature is ON, no one can make a telephone call until the setting is set to OFF.

To restrict access to the LOCK PHONE option, you need to register a password. Set the password and LOCK PHONE option as follows:

- | ACTION | DISPLAY |
|--|---|
| 1
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> FUNCTION
  </div> <div style="text-align: center;"> DATA REGISTRATION
  </div> </div> | <div style="border: 1px solid black; padding: 5px; text-align: center;"> DATA REGISTRATION
 1.SPEED DIAL SETUP </div> |
| 2
Use the search buttons to display 7. SYSTEM SETTINGS.
<div style="display: flex; justify-content: space-around; align-items: center; margin-top: 10px;"> <div style="text-align: center;"> \wedge
  </div> <div style="text-align: center;"> \vee
  </div> </div> | <div style="border: 1px solid black; padding: 5px; text-align: center;"> DATA REGISTRATION
 7.SYSTEM SETTINGS </div> |
| 3
Press SET , then use the search buttons to display 1. UN/LOCK PHONE.
<div style="display: flex; justify-content: space-around; align-items: center; margin-top: 10px;"> <div style="text-align: center;"> SET
  </div> <div style="text-align: center;"> \wedge
  </div> <div style="text-align: center;"> \vee
  </div> </div> | <div style="border: 1px solid black; padding: 5px; text-align: center;"> SYSTEM SETTINGS
 1.UN/LOCK PHONE </div> |
| 4
Press SET .
<div style="margin-top: 10px;"> <div style="text-align: center;"> SET
  </div> <ul style="list-style-type: none"> If a password has already been registered, enter it now, then press SET. </div> | <div style="border: 1px solid black; padding: 5px; text-align: center;"> UN/LOCK PHONE
 PASSWORD _ </div> |
| 5
Press SET .
<div style="margin-top: 10px;"> <div style="text-align: center;"> SET
  </div> <ul style="list-style-type: none"> If a password is already registered, it will be displayed: If a password is not registered, the following is displayed: </div> | <div style="margin-top: 10px;"> <div style="display: flex; align-items: center;"> Ex: <div style="border: 1px solid black; padding: 5px; text-align: center; flex-grow: 1;"> PASSWORD
 1234 </div> </div> <div style="border: 1px solid black; padding: 5px; text-align: center; margin-top: 10px;"> PASSWORD </div> </div> |
| 6
To register or change the current password, enter four numbers, then press SET .
<div style="margin-top: 10px;"> <div style="display: flex; align-items: center;"> Ex: <div style="display: flex; gap: 5px;"> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; text-align: center; line-height: 30px;">4</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; text-align: center; line-height: 30px;">3</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; text-align: center; line-height: 30px;">2</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; text-align: center; line-height: 30px;">1</div> <div style="text-align: center; margin-left: 10px;"> SET
  </div> </div> </div> </div> | <div style="border: 1px solid black; padding: 5px; text-align: center; margin-top: 10px;"> PASSWORD
 4321 </div> |
| <p style="text-align: center;">-01-</p> <p>To keep the current password, press SET.</p> <div style="margin-top: 10px;"> <div style="text-align: center;"> SET
  </div> </div> | |

7

Use the search buttons to set LOCK PHONE on or off, then press **SET**.



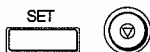
- The default setting is OFF. Anyone can send documents or dial normally.
- When set to ON, no one can send documents or dial until the setting is changed to OFF.

LOCK PHONE	OFF
------------	-----

LOCK PHONE	ON
------------	----

8

Press **SET** to save the setting, then press **STOP** to return to standby mode.



23/07 '95 FRI 17:20

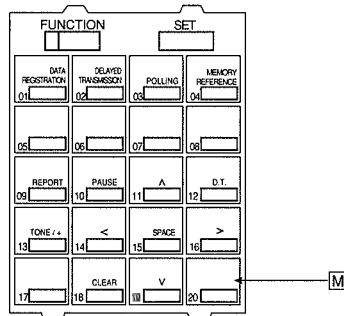
Using Alternative Telephone Networks (UK only)

The fax has a built-in feature that allows you to send documents and make telephone calls with an alternative long-distance service, such as the 2300 Service of Mercury Communications Limited. If you subscribe to such a service, you can save money on most long distance international communications.

The procedures described in this section show you how to use your fax with the 2300 Service of Mercury Communications Limited. For details on using your fax with alternative telephone services, contact your Canon authorised representative.

Attaching the M Label (UK only)

Before operating the fax, attach the M label to help you identify the button as shown below.



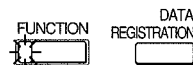
Registering an Alternative Telephone Network

ACTION

DISPLAY

1

Press **FUNCTION** and **DATA REGISTRATION**.



DATA REGISTRATION
1.SPEED DIAL SETUP

2

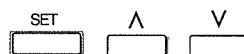
Use the search buttons to display 2. USER SETTINGS.



DATA REGISTRATION
2.USER SETTINGS

3

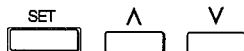
Press **SET**, then use the search buttons to display 12. M-KEY SETTING.



USER SETTINGS
12.M-KEY SETTING

4

Press **SET**, then use the search buttons to select.

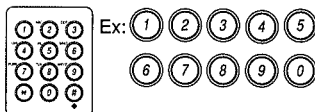


ACCESS CODE
132

- You can select 132 (default) or 131P ("P" means a four-second pause).

5

Press **SET**, then use the numeric buttons to enter the ID code.

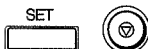


ID CODE
1234567890

- This code is given to you by Mercury Telecommunications Limited.
- If your access code is 132, you don't have to enter the ID code. Go on to the next step.
- If your access code is 131 you will need to enter your Personal Identification Number (PIN).
- If you need to enter a code, you can enter up to 20 digits (pauses are unnecessary).
- If an ID code is already registered, you will see a string of asterisks ***** on the display.

6

Press **SET**, then press **STOP** to return to standby mode.



23/07 '95 FRI 17:20

Sending with an Alternative Telephone Network

1

Place the document face down on the automatic document feeder (ADF), and gently insert it until it stops.



2

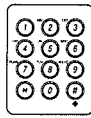
Press **FUNCTION**, then **M**.



TEL= M

3

Use the numeric buttons to enter the facsimile or telephone number of the other party.



Ex: (4) (1) (6) (7) (9)
(5) (1) (1) (1) (1)

TEL= M4167951111

4

Press **START**.



- The fax automatically dials the access code and ID code registered under the M button. Next, the fax dials the number of the other party and connects the call. In order to protect your codes, the access code and ID code are not printed on activity reports.

Registering Speed Dialling with the M Button

Follow this procedure to enter your access code and ID code when you register a number for One-Touch or Coded Speed Dialling. This allows you to send documents over the 2300 Service of Mercury Communications Limited at the press of a button.

1

Before you can do this procedure, you must register the access code and ID code.

2

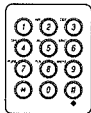
While you are registering a number for One-Touch or Coded Speed Dialling, and you come to a step that asks you enter the facsimile number of the other party, press **M**.



TELEPHONE NUMBER
TEL= M

3

Use the numeric buttons to enter the facsimile number.



Ex: (4) (1) (6) (7) (9)
(5) (1) (1) (1) (1)

TELEPHONE NUMBER
TEL= M4167951111

4

Continue with the procedure for registering One-Touch or Coded Speed Dialling.

- After you have registered the number for speed dialling, you can dial and use the 2300 Service without press the M button.

Activity Reports

Part

6

This part describes how to print a variety of reports.

Printing Transaction Reports

The fax can print a variety of reports that will help you keep track of your transactions and the information registered in your fax. To select specific report types, see "REPORT SETTINGS" in Appendix A. (→p. A-4)

Activity Management Reports

Activity management reports provide a record of the last 40 transmissions your fax sends or receives.

1

Press **FUNCTION** then **REPORT**.



An activity management report similar to that shown below prints out.

20/02 '96 TUE 16:35 FAX 31 20 545 8264				CANON EUROPA		001	

* ACTIVITY REPORT *							

ST. TIME	CONNECTION TEL	CONNECTION ID	NO.	MODE		PGS.	RESULT
*17/02 01:57	8261	CENV	0059	TRANSMIT	ECM	1	OK 00'23
*17/02 01:58	8261	CENV	0060	TRANSMIT	ECM	1	OK 00'24
*17/02 01:59	8261	CENV	0061	TRANSMIT	ECM	1	OK 00'26
*17/02 02:00	8261	CENV	0062	TRANSMIT	ECM	1	OK 00'24
*17/02 02:01	8281	CENV PATRICIA	0063	TRANSMIT	ECM	1	OK 00'24
*17/02 02:02	8261	CENV	0064	TRANSMIT	ECM	1	OK 00'26
*17/02 02:03	8260	CENV/BMTS	0065	TRANSMIT	ECM	1	OK 00'26
*17/02 02:04	8261	CENV	0066	TRANSMIT	ECM	1	OK 00'25
*17/02 02:05	8261	CENV	0067	TRANSMIT	ECM	0	NG 00'10
							0 STOP
*17/02 02:06	8261	CENV	0068	TRANSMIT	ECM	1	OK 00'22
*17/02 02:07	05458261		0069	TRANSMIT		0	NG 00'10
							0 #018

If marked with an asterisk, the document has already been printed out.

Transaction number

Sending mode

Transaction via Error Correction Mode

The number of the page with an error

Error code: Describes the nature of the error

STOP was pressed during transaction

- The fax will automatically print an activity management report after every 40 transactions. You can also set it not to do so. (→p. A-5)
- The fax prints sending and receiving transactions together in the same report, though you can also set it to print sending and receiving transactions in separate reports. (→p. A-5)

Printing Transaction Reports

20/02 '96 TUE 19:18 FAX 31 20 545 8264				CANON EUROPA			001	
* * * * *								
* ACTIVITY MANAGEMENT REPORT TX *								
* * * * *								
ST. TIME	CONNECTION TEL	CONNECTION ID	NO.	MODE		PGS.	RESULT	
*17/02 02:01	8281	CENV PATRICIA	0063	TRANSMIT	ECM	1	OK	00'24
*17/02 02:02	8261	CENV	0064	TRANSMIT	ECM	1	OK	00'26
*17/02 02:03	8260	CENV/BMTS	0065	TRANSMIT	ECM	1	OK	00'26
*17/02 02:04	8261	CENV	0066	TRANSMIT	ECM	1	OK	00'25
*17/02 02:05	8261	CENV	0068	TRANSMIT	ECM	1	OK	00'22
*17/02 02:06	8261	CENV	0069	TRANSMIT	ECM	1	OK	00'25
*17/02 02:07	8281	CENV PATRICIA	0070	TRANSMIT	ECM	1	OK	00'25

Send and receive transactions listed separately

Send and receive transactions listed separately

* * * * * * ACTIVITY MANAGEMENT REPORT RX * * * * * *								
ST. TIME	CONNECTION TEL/ID	RX NAME	NO.	MODE		PGS.	RESULT	
*19/02 20:25	+31 20 545 8208	CENV SMD	5008	AUTO RX	ECM	1	OK	00'35
*19/02 20:28	31 20 5458281	CENV PATRICIA	5009	AUTO RX	ECM	1	OK	00'34
*19/02 21:18			5010	AUTO RX	G3	0	NG	00'10
						0		
*19/02 21:22			5011	AUTO RX	G3	0	NG	00'10
						0		
*20/02 00:21		CENV	5012	AUTO RX	ECM	1	OK	00'30
*20/02 00:23		CENV	5013	AUTO RX	ECM	1	OK	00'33
*20/02 16:13	+31 20 545 8208	CENV SMD	5014	AUTO RX	ECM	1	OK	00'35

Transmission Reports

The fax normally prints an activity report for sending only when an error occurs during sending, but you can also set it to print a report every time you send a fax. (→p. A-5)

17/02 '96 SAT 01:10 FAX 31 20 545 8264		CANON EUROPA		001

* ERROR TX REPORT *				

TX FUNCTION WAS NOT COMPLETED				
TX/RX NO		0003		
CONNECTION TEL		865		
SUBADDRESS				
CONNECTION ID				
ST. TIME		17/02 01:10		
USAGE T		00'00		
PGS.		0 (0)		
RESULT		NG		
		0 #018		

The "PGS." item of the report displays the number of pages sent or unsent according to the results of the transmissions. Below are some examples:

- 3 OK: All three pages sent.
- 2 (3) OK: Two pages sent in the second attempt. Total number of pages sent is three.
- 2 (1) NG: An error occurred while sending the second page during the second attempt. Total number of pages sent is one.
- 0 (0) NG: No pages sent in the first or second attempt.
- 2 (2) NG: An error occurred while sending the second page during the second attempt. Total number of pages sent is two.

The fax will print a report after a second attempt at sending a document.

When you set the fax to print the first page of the documents

20/02 '96 TUE 19:27 FAX 31 20 545 8264	CANON EUROPA	21001
<p>***** * TX REPORT * *****</p>		
TRANSMISSION OK		
TX/RX NO	0092	
CONNECTION TEL		8261
SUBADDRESS		
CONNECTION ID	CENV	
ST. TIME	20/02 19:27	
USAGE T	00'31	
PGS.	1	
RESULT	OK	

THE SLEREXE COMPANY LIMITED

SAPORS LANE - BOOLE - DORSET - BH 25 8 ER

TELEPHONE BOOLE (545 13) 51617 - TELEX 123456

Our Ref. 350/PJC/EAC

18th January, 1972.

Dr. F.N. Cundall,
 Mining Surveys Ltd.,
 Holroyd Road,
 Reading,
 Berks.

Dear Pete,

Permit me to introduce you to the facility of facsimile transmission.

In facsimile a photocell is caused to perform a raster scan over the subject copy. The variations of print density on the document cause the photocell to generate an analogous electrical video signal. This signal is used to modulate a carrier, which is transmitted to a remote destination over a radio or cable communications link.

At the remote terminal, demodulation reconstructs the video signal, which is used to modulate the density of print produced by a printing device. This device is scanning in a raster scan synchronised with that at the transmitting terminal. As a result, a facsimile copy of the subject document is produced.

Probably you have uses for this facility in your organisation.

Yours sincerely,

Phil.

F.J. CROSS
 Group Leader - Facsimile Research

■ You can print part of the first page of the fax being sent on the activity report.

Reception Reports

The fax normally does not print an activity report for receiving, but you can set it to do so every time you receive a fax. (→p. A-5)

20/02 '96 TUE 16:14 FAX 31 20 545 8264		CANON EUROPA		2001	
* * * * * * RX REPORT * * * * * *					
RECEPTION OK					
TX/RX NO		5014			
CONNECTION TEL		+31 20 545 8208			
SUBADDRESS					
CONNECTION ID		CENV SMD			
ST. TIME		20/02 16:13			
USAGE T		00'35			
PGS.		1			
RESULT		OK			

- You can also set the fax to print an activity report only when an error occurs during receiving. (→p. A-5)

Memory Clear Reports

If you experience a power failure, every document stored in memory will be lost after about one hour. As soon as power is restored, the fax will automatically print out a list of documents that were stored in memory at the time of the power failure.

19/02 '96 MON 09:27 FAX 31 20 545 8264			CANON EUROPA		001	
* * * * *						
* MEMORY CLEAR REPORT *						
* * * * *						
TX/RX NO.		MODE	CONNECTION TEL		PAGES	SET TIME START TIME
0033		MEMORY RX	31 20 545 8264		1	16/02 19:05
0034		MEMORY RX	31 20 545 8264		1	16/02 19:06
0032		MEMORY RX	31 20 545 8264		1	16/02 19:03
0035		MEMORY RX	31 20 545 8264		1	16/02 19:08
0036		MEMORY RX	31 20 545 8264		1	16/02 19:09
0037		MEMORY RX	31 20 545 8264		1	16/02 19:10
0038		MEMORY RX	31 20 545 8264		1	16/02 19:10
0039		MEMORY RX	31 20 545 8264		1	16/02 19:11
0040		MEMORY RX	31 20 545 8264		1	16/02 19:12

Printing a List of User's Data

Use the following procedure to print a list of the data registered in the fax. This list allows you to review all the settings available and the selections currently in place for your FAX-L300.

ACTION

DISPLAY

1

Press **FUNCTION**, **DATA REGISTRATION**, and **SET**.

FUNCTION F	DATA REGISTRATION R	V	SET S
---------------	---------------------------	---	----------

USER SETTINGS
1.DATE & TIME

2

Press **REPORT** to print the user's data list.

REPORT R

PRINTING REPORT

20/02 '96 TUE 19:29 FAX 31 20 545 8264		CANON EUROPA	001
EC-01-03 /02		***** * USER'S DATA LIST * *****	
USER SETTINGS			
UNIT TELEPHONE #	31 20 545 8264		
UNIT NAME	CANON EUROPA		
TX TERMINAL ID	ON		
TTI POSITION	OUTSIDE IMAGE		
TELEPHONE # MARK	FAX		
AUTO HALFTONE	OFF		
SCANNING CONTRAST	STANDARD		
OFFHOOK ALARM	ON		
VOLUME CONTROL			
CALLING VOLUME	VOL MID		
KEYPAD VOLUME	VOL MID		
ALARM VOLUME	VOL MID		
RX CALL LEVEL	STANDARD		
TEL LINE TYPE	TOUCH TONE		
R-KEY SETTING	PBX		
PBX	EARTH CONNECTION		
REPORT SETTINGS			
TX REPORT	OUTPUT YES		
REPORT WITH TX IMAGE	ON		

SYSTEM SETTINGS			
RESTRICTIVE CODES	OFF		
TEL SETTING	OFF		
RX RESTRICTION	DD/MM 'YY		
DATE FORMAT	ENGLISH		
DISPLAY LANGUAGE	14400bps		
TX START SPEED	14400bps		
RX START SPEED			
DIAL DIGITS REMAIN	98%		
EXTENSION MEMORY	2.208MByte		

Amount of memory remaining for One-Touch or Coded Speed Dialling

Printing a List of Registered Telephone Numbers

Use this procedure to print separate lists of the One-Touch, Coded Speed, and Group Dialling numbers registered in the fax.

ACTION

DISPLAY

1

Press **FUNCTION**, **DATA REGISTRATION**, and **SET**.

FUNCTION

DATA REGISTRATION

SET

SPEED DIAL SETUP

1.1-TOUCH SPD DIAL

2

Press **REPORT** to print a list of registered speed dial numbers.

REPORT

PRINTING REPORT

One-Touch Speed Dialling Report 1

20/02 '96 TUE 19:55 FAX 31 20 545 8264					CANON EUROPA		001	

* 1-TOUCH SPD DIAL LIST 1 *								

NO.		CONNECTION TEL		CONNECTION ID		TX TYPE		⌚
[01]		8261		CANON-TEST		REGULAR TX		
[02]		05458261		CENV		REGULAR TX		
[03]		05458281		CENV PATRICIA		REGULAR TX		
[04]		05458260		CENV/BMTS		REGULAR TX		
[05]		05458208		CENV SMD		REGULAR TX		
Sending method						Preset sending time		

Coded Speed Dialling Report 1

20/02 '96 TUE 19:55 FAX 31 20 545 8264 CANON EUROPA 001				
***** * CODED SPEED DIAL LIST 1 * *****				
NO.	CONNECTION TEL	CONNECTION ID	TX TYPE	
[* 00]	00441256841300	CANON AUDIO	REGULAR TX	
[* 01]	6128052011	CANON AUSTRIA	REGULAR TX	
[* 02]	14167951111	CANON CANADA	REGULAR TX	
[* 03]	33149392525	CANON FRANCE	REGULAR TX	
[* 04]	26822672	GINGI	REGULAR TX	
[* 05]	5706425	ALEXANDRIA	REGULAR TX	

Group Dialling Report

20/02 '96 TUE 20:23 FAX 31 20 545 8264

CANON EUROPA

001

*****~

* GROUP DIAL LIST *

[06] CANON GERMANY [01] 8261 CANON-TEST

[03] 05458281 CENV PATRICIA

[05] 05458208 CENV SMD

[07] CANON HQ [04] 05458260 CENV/BMTS

[05] 05458208 CENV SMD

[08] GROUP A [03] 05458281 CENV PATRICIA

[04] 05458260 CENV/BMTS

[09] GROUP SIX [01] 8261 CANON-TEST

[02] 05458261 CENV

[03] 05458281 CENV PATRICIA

[10] [01] 8261 CANON-TEST

[02] 05458261 CENV

[03] 05458281 CENV PATRICIA

[05] 05458208 CENV SMD

Printing a Detailed List of One-Touch Speed Dialling Numbers

Use this procedure to print a detailed list of the One-Touch Speed Dialling numbers registered in the fax.

ACTION	DISPLAY
1 Follow steps 1 to 3 on page 5-2.	1-TOUCH SPD DIAL 00=
<ul style="list-style-type: none">If there is a group registered in "00", use the search buttons to select a button registered for One-Touch Speed Dialling.	
2 Press SET , then press REPORT to print the list.	1-TOUCH SPD DIAL 1.TELEPHONE NUMBER
<div>SET</div> <div></div>	<div>REPORT</div> <div></div>

One-Touch Speed Dialling Report 2

20/02 '96	TUE	20:28	FAX	31	20	545	8264	CANON EUROPA	2001

* 1-TOUCH SPD DIAL LIST 2 *									

[01]	CONNECTION TEL	8261							
	CONNECTION ID	CANON-TEST							
	TX SPEED	14400bps(0)							
	TX TYPE	REGULAR TX							
[02]	CONNECTION TEL	05458261							
	CONNECTION ID	CENV							
	TX SPEED	14400bps(0)							
	TX TYPE	REGULAR TX							
[03]	CONNECTION TEL	05458281							
	CONNECTION ID	CENV PATRICIA							

Printing a Detailed List of Coded Speed Dialling Numbers

Use this procedure to print a detailed list of the Coded Speed Dialling numbers registered in the fax.

ACTION

DISPLAY

1

Follow steps 1 to 3 on page 5-5.

CODED SPD DIAL
*00=

- If there is a group registered in "*00", use the search buttons to select a code registered for Coded Speed Dialling.

2

Press **SET**, then press **REPORT** to print the list.

SET REPORT

CODED SPD DIAL
1.TELEPHONE NUMBER

Coded Speed Dialling Report 2

20/02 '96	TUE	20:29	FAX	31	20	545	8264	CANON EUROPA	2001

* CODED SPEED DIAL LIST 2 *									

[* 00]	CONNECTION TEL	00441256841300							
	CONNECTION ID	CANON AUDIO							
	TX SPEED	14400bps(0)							
	TX TYPE	REGULAR TX							
[* 01]	CONNECTION TEL	6128052011							
	CONNECTION ID	CANON AUSTRIA							
	TX SPEED	14400bps(0)							
	TX TYPE	REGULAR TX							
[* 02]	CONNECTION TEL	14167951111							
	CONNECTION ID	CANON CANADA							

Maintenance

Part

7

The fax is designed to operate with a minimum of regular maintenance, as described in this chapter.

Maintaining the Fax

Use the procedures in this section to keep your fax in top working order.

Cleaning the Fax

Clean your fax regularly to help ensure good performance.



Follow these precautions whenever you clean the fax:

- Before you clean the fax, be sure to print any faxes stored in memory.
- Do not use tissue paper, paper towels, or similar materials for cleaning; they can stick to the components or generate static charges.

Cleaning the Outer Casing

Clean the fax's outer casing as follows:



When you unplug the fax, be sure to plug it in again as soon as possible: without power, it will retain any data in image memory for about an hour. After this, the data will be lost.

1

Unplug the fax.

2

Lightly wipe the unit's outer casing with a clean, soft, lint-free cloth moistened with water or diluted dishwashing detergent solution.



Do not use thinner, benzene, alcohol, or other inorganic solvents to clean the fax, or you can discolour it or cause it to malfunction.

3

Plug the fax back in.

Cleaning the Inside of the Fax

To prevent toner powder and paper dust from accumulating and affecting the quality of the fax's printing, clean the inside of the fax periodically as follows:



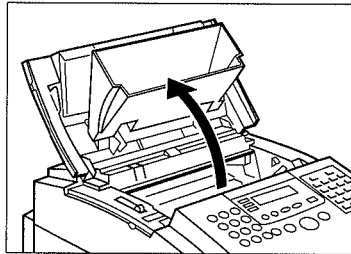
When you unplug the fax, be sure to plug it in again as soon as possible: without power, it will retain any data in image memory for about an hour. After this, the data will be lost.

1

Unplug the fax.

2

Open the printer door.



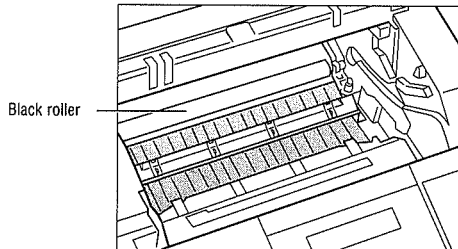
3

Remove the toner cartridge.

- Store the cartridge in its protective bag to avoid exposure to light.

4

Use a clean, soft, dry, lint-free cloth to remove any toner or paper debris from the shaded area.



Do not touch the black roller at the back, as this may affect the print quality of your faxes.

5

Replace the toner cartridge.

6

Close the printer door.

7

Plug the fax back in.

Cleaning the Scanner Components

Periodically check the scanning glass and rollers.



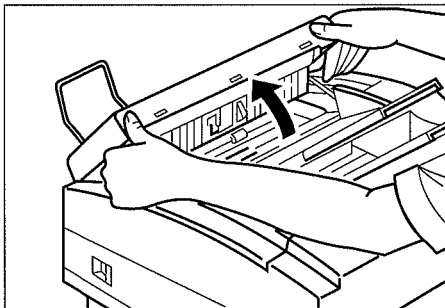
When you unplug the fax, be sure to plug it in again as soon as possible: without power, it will retain any data in image memory for about an hour. After this, the data will be lost.

1

Unplug the fax.

2

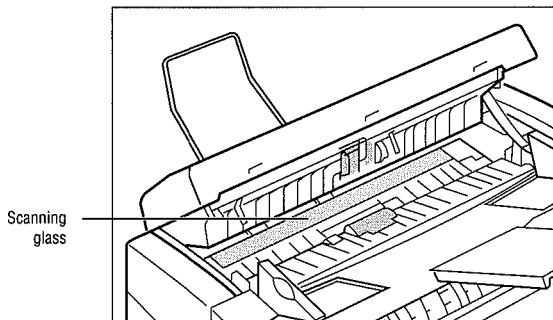
Open the operation panel.



3

Use a soft, dry clean cloth to clean the scanning glass and rollers (shaded areas).

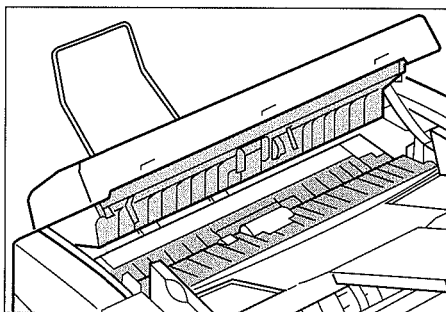
- If the document scanning glass and rollers are dirty, the documents you send or print will be dirty, too.
- Clean with a soft cloth that will not scratch the glass or rollers.



4

Clean the shaded areas of the operation panel and the fax.

- Dirt and dust particles that collect on the underside of the operation panel also affect the quality of documents you copy and send.

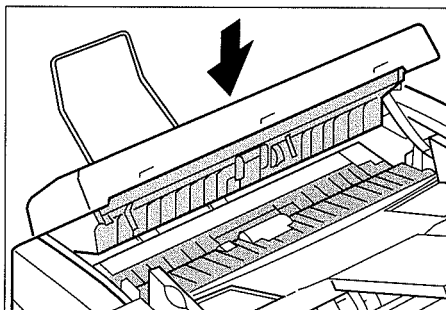


5

Use a soft, dry clean cloth to wipe up paper dust around the rollers.

6

When you are finished, close the operation panel by pressing it down from the centre as shown.



Be sure to close the operation panel until it locks into place. Otherwise the fax will not function properly.

7

Plug the fax back in.

Troubleshooting

Part 8

This part describes the troubleshooting procedures to use should a problem occur when using the fax.

Problems and Solutions

Use the information in this section to solve any problems you may have when using your fax.

Paper Jams

On occasion, the document feeding into the fax or the paper in its printing unit may misfeed or jam. If this happens, you can usually fix the problem easily using the procedures below.



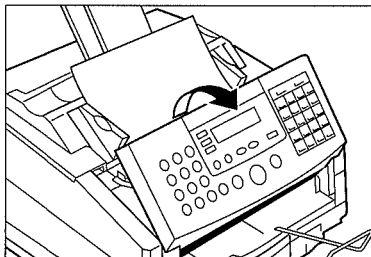
You do not need to unplug the fax while clearing paper jams.

Document Feed Jams and Misfeeds

Use this procedure if the document being fed into the fax jams or misfeeds. In this case, CHECK DOCUMENT is displayed.

1

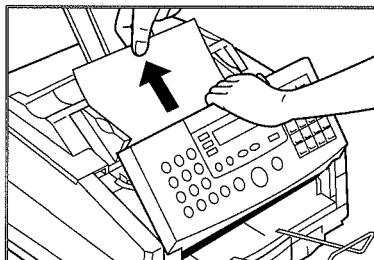
Lift and open the operation panel.



- Pulling the document without opening the operation panel may cause it to tear or become soiled.

2

With the operation panel open, remove the document by pulling it up.



3

Close the operation panel by pressing it down from the centre.

4

Press **STOP**.



5

Reset the document as described on page 3-4.

Recording Paper Jams

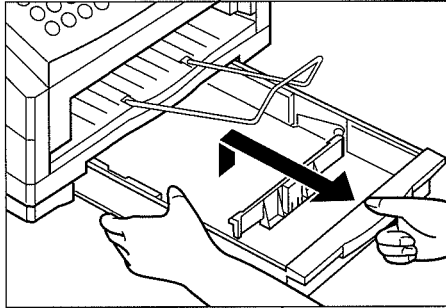
If the recording paper jams or misfeeds while you are printing or copying, check the following areas in the order described below.

Be sure to remove any documents or printed pages from the fax before removing the paper jam.

■ Paper Cassette Area

1

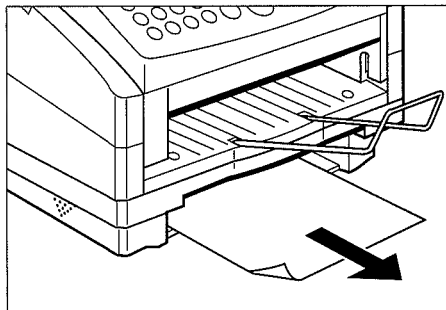
Remove the paper cassette.



- Be careful not to drop the cassette as you pull it out.

2

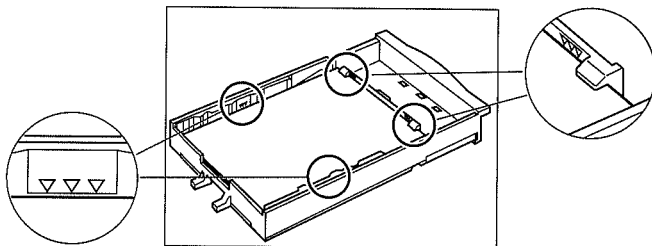
If there is any jammed paper inside the fax, gently pull it out of the unit being careful not to tear it.



3

Remove the stack of paper from the cassette and do the following:

- a. Fan the stack of paper, and tap it on a flat surface to even out the stack.
- b. Reinsert the stack of paper into the cassette. Make sure all corners and edges are flat and even, that the stack is not higher than the limit mark (▼▼▼), and that it fits under the tabs on the paper selector.



4

Replace the paper cassette.

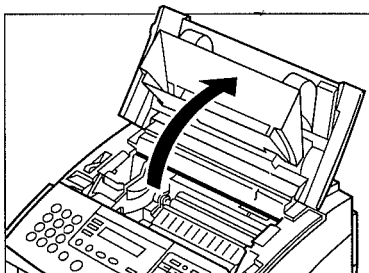


- If the paper cassette jams when you try inserting it in the fax, remove it from the fax and open the printer door. Then close it and try reinserting the paper cassette.
- If the paper jam occurred while receiving a document, the remainder of the document is received in memory. Once the paper jam is cleared, the document in memory will automatically be printed.
- If the error message remains displayed, there may be more jammed paper in other areas. Check the other areas as described on the following pages.

■ Inside the Fax

1

Open the printer door by grasping it on both sides and lifting it up.

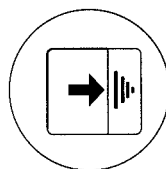
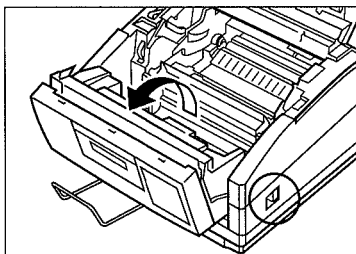
**2**

Remove the toner cartridge from the fax.

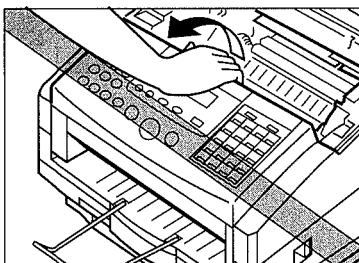
- Store the cartridge in its protective bag to avoid exposure to light.

3

Use the front cover release latch to open the front cover.

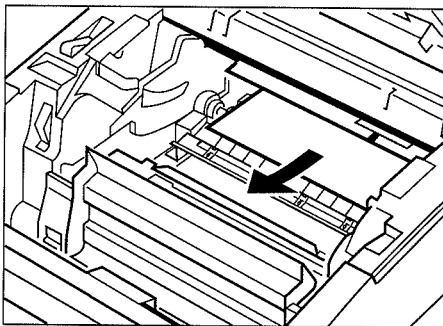


Do not open the front cover without pushing the release latch as this may cause damage to your fax. Be sure to use the front cover release latch to open the front cover.



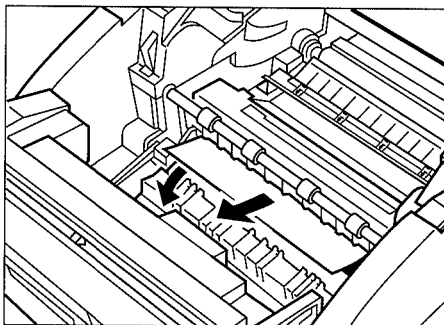
4 Check where the paper is jammed.

5 If the leading edge of the jammed paper is visible, gently pull it out being careful not to tear it.

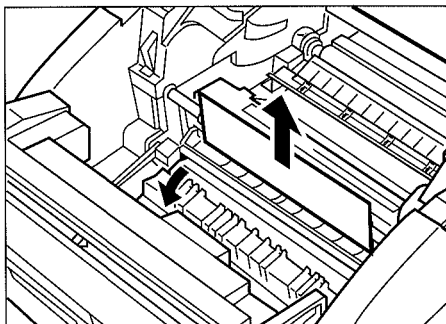


The toner is not yet fixed to the paper in this area; take care not to dirty yourself or the inside of the printer.

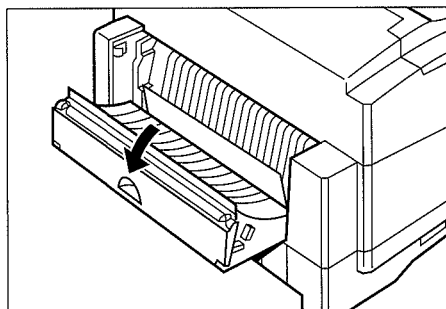
6 Lower the plastic cover and gently remove any jammed paper from the unit by pulling it forward.



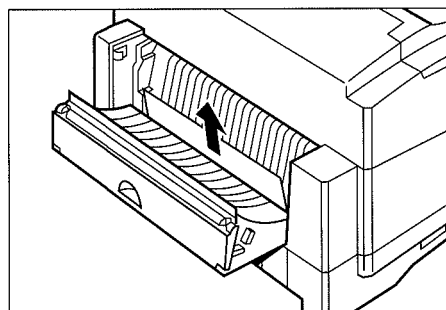
- 7** If necessary, gently pull the paper upwards to remove it from the fax.



- 8** Open the rear cover.



- 9** Gently pull out any jammed paper from the rear area being careful not to tear it.



- 10** Close the rear cover.

11

Replace the toner cartridge.

12

Close the printer door and front cover.

- If the paper jam has been cleared completely, the fax will work normally.

Problems Sending Faxes

The document does not feed properly

- Remove the document, stack it, and place it back in the automatic document feeder (ADF). For multipage documents remove the document and tap the edge of the stack on a flat surface to even the edges. Then place it back in the automatic document feeder (ADF) until it stops. (→p. 3-4)
- Clean the fax roller as described on page 7-4.
- Make sure the operation panel is properly closed. (→p. 7-5, step 6)

Can't send a fax

- Make sure you get a dial tone when you lift the handset. If there is no dial tone, make sure the fax is properly connected as described on page 2-13. If there is still no dial tone, contact your local telephone company.
- Make sure the dialling method (tone or pulse) is set correctly. See page A-3, "TEL LINE TYPE" and page 2-36 for details on setting.
- If you used a One-Touch or Coded Speed Dialling button, check its contents to make sure they are correct.
- If using memory sending, make sure no documents are waiting to be sent ahead of your document or that your document was not deleted from memory.
- The unit may have overheated and shut itself down. If you suspect this, turn it off and let it cool for several minutes, then try using it again.
- Print an activity report and check for an error code. (→p. 6-2)
- Call the person you're sending the fax to and make sure their fax machine has paper in it and is ready to receive faxes.
- Make sure the receiving fax machine is a G3 machine.
- If none of the above seem to help, try turning the fax off. Wait five seconds and turn it on again.

The faxes you send are spotted or dirty

- Find out whether the problem is in your fax by making a copy with it: if the copy is clear, the receiving fax machine may be causing the problem; if the copy is spotted or dirty, clean the inside of your fax (→p. 7-3)

Can't send using error correction mode (ECM)

- Make sure your fax is set for ECM sending. (→p. A-7)
- Make sure the receiving fax machine supports ECM; many do not. If the receiving machine does not support ECM, the fax automatically sends the fax in normal mode.

Errors frequently occur during sending

- Lower the speed at which the unit sends faxes in the TX START SPEED setting of the SYSTEM SETTINGS (14400 bps to 9600 bps for example). (→p. A-13)
If lowering the speed solves the problem for a number registered in a One-Touch Speed Dial button or a Coded Speed Dial code, register this speed in the transmission settings so that future documents are also sent at this speed. (→p. 5-15)

Problems Receiving Faxes

The recording paper jams frequently

- Make sure the recording paper and the paper cassette are properly set as described on page 2-22.

The fax doesn't automatically switch between phone and fax transmissions

- Make sure the ANS HOOK UP and MANUAL lamps are off. If necessary, press the button below them repeatedly until both are off.
- Make sure the receiving mode is set to FAX/TEL AUTO SW.
See page A-8 for details on setting.

The fax won't receive faxes automatically

- Make sure you have printed out or deleted any documents in the fax's memory.
- Make sure the fax is set to receive automatically: press the button below the ANS HOOK UP and MANUAL lamps repeatedly until both lamps are off.
- Make sure the paper cassette has paper in it.
- Check the display for an error message. (→p. 8-14)
- Make sure all phone line connections are secure. (→p. 2-13)
- Print an activity report and check for an error code. (→p. 6-2)
- Make sure the receiving mode is set to AUTO RX.

The fax won't receive faxes manually

(Optional handset or extension phone connected to the fax machine)

- You may have pressed **◇ (START/COPY)** after hanging up the handset. When receiving a fax manually, you must hang up the handset after pressing **◇ (START/COPY)**.
- Check the display for an error message. (→p. 8-14)
- Print an activity report and check for an error code. (→p. 6-2)

The fax won't receive using ECM

- Make sure the fax is set for ECM receiving. (→p. A-8)
- Make sure the sender's fax machine supports ECM. If it doesn't, the fax is sent in normal mode without error checking.

Errors frequently occur during receiving

- Lower the speed at which the unit receives faxes in the RX START SPEED setting of the SYSTEM SETTINGS (14400 bps to 9600 bps for example). (→p. A-13)

If the faxes you receive don't print out properly, see "Problems Printing," below.

Problems Printing

If the fax's print quality becomes unsatisfactory, consider the following suggestions:

- Most paper has one side that provides better print quality than the other. If the print quality is poor, try turning the paper over and printing on the other side.
- If the characters and images are blurred, make sure you're using the correct type of paper, and printing in the correct printing area.
- If the reverse side of the printed page is smudged, the inside of the fax is probably soiled with toner powder. Clean the inside of the unit with clean soft, dry, lint-free cloth. (→p. 7-3)
- If printed images are blotched or uneven, the problem may be noise in the phone/fax lines. Try using ECM receiving (though if the lines are very busy or in poor condition, you may have to ask the sender to try again). See page A-8 for details on setting ECM.

Also, remember that the sending fax machine usually determines the quality of the fax. To see if your fax is the cause of the problem, use it to make a copy: if the copy is clear, the sending fax machine may be the problem; if the copy is not clear, the fax may need to be cleaned.

Nothing prints

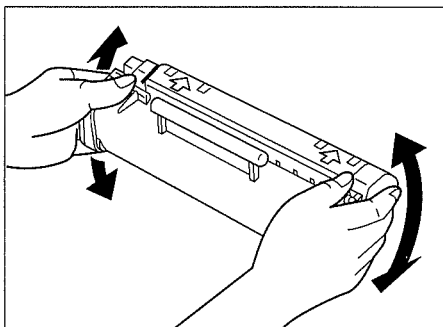
- Make sure the seal has been removed from the toner cartridge.
 - Replace the toner cartridge.
- If the following print quality problems occur over the entire printing area, try the remedies listed below.

Print	Most Probable Cause	Remedy
Smudged	Wrong paper type	Try a different type
Blurred	Wrong paper type	Try a different type
Faded	Toner is low or unevenly distributed	See page 8-12
White streaks	Toner is low or unevenly distributed	See page 8-12

Vertical White Streaks

Vertical white streaks may appear when the error message REPLACE CARTRIDGE is displayed. This indicates that the toner level is low or that the toner is unevenly distributed. If this happens, follow these steps:

- 1** Open the printer door and take out the toner cartridge.
- 2** Gently rock the cartridge from side to side five or six times to evenly distribute the toner inside.



- 3** Put the cartridge back into the fax.
- 4** Close the printer door.

If the problem continues, the cartridge needs to be replaced. See page 2-17, "The Toner Cartridge" for details on replacing the FX3 toner cartridge.

Miscellaneous Problems

The telephone doesn't work

- Make sure the phone line is correctly connected to the fax. (→p. 2-13)
- Make sure the fax is set for the type of line you have (pulse or tone). (→p. 2-36, A-3)


The phone disconnects while you are talking

- If the ANS HOOK UP lamp is lit, press the button below it repeatedly to turn it off. The ANS HOOK UP lamp should light only when an answering machine is connected and turned on.

Nothing appears in the display

- Make sure the fax is plugged in.

Can't make copies

- Make sure the  (HOOK) button is not depressed. Press it to release if needed.
- Make sure the handset is in its hook.
- When making multiple copies and MEMORY FULL is displayed: There is not enough memory for the whole document. Divide your document into several parts and copy each part separately.
If this message occurs when your document is only one page long, we recommend you increase the fax's memory with the optional memory board.

Can't poll other units

- Make sure the other fax machine is ready to send.

The paper cassette can not be inserted

- Make sure there is no jammed paper inside the fax. Open the printer door, then close it and try reinserting the paper cassette.

The toner cartridge can not be removed

- Remove the cartridge following the instruction described on page 2-18.


Display Messages and Meanings

The following pages show the messages that may appear on your fax's display, along with the meaning of each, and what to do if that message appears.

Message	Error #	Meaning	Solutions
AUTO REDIAL		The receiving fax was busy, and the fax is redialling.	Refer to page 3-8 to cancel the transmission if you want.
BUSY/NO SIGNAL	#005	The other party did not answer.	Start again from the beginning.
	—	The other party is not using a G3 unit.	Contact the other party and have them send or receive the document using a G3 machine.
	#018	The other party does not answer, even after redialling.	Wait a while and try again. If you still can't send, the receiving fax may be off.
		The touch tone/rotary pulse setting on your fax is incorrect.	Set your fax to the setting that matches your telephone line. (→p. 2-36)
		The receiving fax did not answer within 35 seconds.	Contact the other party and have them check their fax. You can try to send the document manually. For an overseas call, add pauses at the end of the registered number. (→p. 5-18)
CANNOT DO POLLING RX	#021 #008	You can not poll.	If the other party is using a Canon fax machine, ask him to set the polling ID of his fax to 255. (→p. 5-25)
CHECK DOCUMENT		A page may be jammed in the automatic document feeder (ADF). Polling error. The document has not been fed into the automatic document feeder (ADF) correctly on the sender's fax machine.	Remove the jammed page and try again. (→p. 8-2) Ask the sender to remove the document and reinsert it properly in the fax machine. (→p. 3-4)
CHECK PAPER SIZE	—	The recording paper size loaded in the paper cassette and that specified in the fax printer setup are different.	Set the correct paper size in the FAX PRINTER SETUP. (→p. A-11)
CHECK PRINTER	—	Fax malfunction.	Press  (STOP) or unplug the fax, then plug it in again. If the display doesn't change, call for service.
CHECK PRT/FRNT COVRS	—	The printer door or front cover is open.	Make sure that the printer door and front cover are completely closed.
COMMUNICATING PLEASE WAIT	—	You tried to use manual sending while the fax was sending from memory.	Wait until the fax is sent, then try again, or use memory sending. (→p. 3-6)
DIALING	—	The fax is dialling the receiving fax machine.	Press  (STOP) if you want to cancel the transmission.
DOCUMENT READY	—	The document is in the automatic document feeder (ADF) and ready for faxing or copying.	Send the fax or make a copy, or remove the document from the automatic document feeder (ADF).

Message	Error #	Meaning	Solutions
DOCUMENT TOO LONG	#003	The document is longer than 1 m.	Use a copy machine to make a reduced copy of the document. Then send again.
ECM RX	—	The fax is receiving a fax using ECM.	ECM transmissions may take longer than normal transmissions. Try turning it off if you need to receive quickly, or if you know your local phone lines are in good condition.
ECM TX	—	The fax is sending a fax using ECM.	ECM transmissions may take longer than normal transmissions. Try turning it off if you need to transmit quickly, or if you know your local phone lines are in good condition.
ERASING END	#995	The document was deleted from the memory.	—
HANG UP PHONE	—	The optional handset or the extension telephone is off the hook.	Make sure the handset is set properly in its cradle.
INSTALL CARTRIDGE	—	The toner cartridge is not installed.	Install the cartridge, making sure it is all the way in. See page 2-17 for replacing the toner cartridge.
MEMORY FULL	#037	The fax's memory is full because it has received too many documents or a very detailed document.	Print out any documents that are stored in memory. Then start the operation again. If the memory contains any faxes you don't need, delete them. You can not receive a fax in memory if the fax was scanned with fine graphic images.
MEMORY FULL PLEASE WAIT	—	The fax's memory is full because you tried to send too many pages at once.	Divide the document and send each part separately. Turn AUTO HALFTONE OFF. (→p. 3-13)
	—	The fax is sending a fax from memory and its memory is full.	Wait until the fax is sent. The fax continues to send the fax as memory becomes available.
MEMORY IN USE nn%	—	Shows the percentage of memory currently in use.	If you need more space, print and check the memory list, then clear any unnecessary documents.
NO ANSWER		The receiving fax machine does not answer.	Make sure you dialled the correct number. Try again later.
NO RX PAPER	#012	The receiving fax machine is out of paper, or its memory is full.	Call the other party and ask them to put paper in their machine, or to clear their fax machine's memory.
NO TEL #	#022	The button you pressed has no number registered for One-Touch Speed Dialling, Coded Speed Dialling, or Group Dialling.	Print a list of registered numbers and make any corrections needed, then try again.

Display Messages and Meanings

Message	Error #	Meaning	Solutions
NOT AVAILABLE NOW	#025	In manual sending (using OFF HOOK) you tried to use a One-Touch or Coded Speed Dial number that has a group registered.	In manual sending you can not send a document to multiple destinations. Send the document to each location at a time.
OUTPUT TRAY FULL		The face-down slot is full with printed pages.	Remove the pages from the face-down slot.
PLEASE WAIT	—	The fax is warming up.	Wait until you see the standby mode message, then begin.
REC. PAPER JAM	#009	The fax has a paper jam.	Clear the paper jam. (→p. 8-2)
RECEIVED IN MEMORY	—	The fax received a fax in memory because the paper or toner ran out.	Change the cartridge or add recording paper, then print the fax from memory.
REPLACE CARTRIDGE	—	The toner cartridge is out of toner.	Replace the toner cartridge. (→p. 2-17)
START AGAIN	—	An error occurred on the phone line or in the system.	Start the procedure again from the beginning.
	#080	The other party might not have set the subaddress.	Call the other party and check to see if the subaddress has been set.
	#081	The other party might not have set the password.	Call the other party and check to see if the password has been set.
	#102	The subaddress and/or password does not match the settings on the other party's fax unit.	Call the other party and check to see if the subaddress and the password are the same as those of the other party.
SUPPLY REC. PAPER		The fax is out of paper.	Add more paper to the paper cassette. Make sure the stack is below the limit mark (▼▼▼). (→p. 2-24)
TX/RX CANCELLED	—	You pressed the  (STOP) button to cancel the current operation.	—
TX/RX NO. nnnn	—	When the fax sends or receives a fax, it assigns it a unique identification number.	Write the number down if you'll need it later.

The Menu System

Appendix



This appendix summarizes the FAX-L300's menu system. Use this as a guide to help customize how your fax operates.

The Menu System

The fax's menu system allows you to customize the way your fax works. The following pages outline the fax's various menus and settings, and shows how to use them.



The default settings in the following tables are shown by asterisks (*).

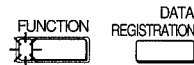
To Access SPEED DIAL SETUP:

ACTION

DISPLAY

1

Press **FUNCTION** and **DATA REGISTRATION**.



DATA REGISTRATION
1.SPEED DIAL SETUP

2

Press **SET**, then use the search buttons to display the item you want to set or change.



- For more details on registering numbers, see page 5-2.

To Access USER SETTINGS:

ACTION

DISPLAY

1

Press **FUNCTION** and **DATA REGISTRATION**.



DATA REGISTRATION
1.SPEED DIAL SETUP

2

Use the search buttons to display 2. USER SETTINGS.



DATA REGISTRATION
2.USER SETTINGS

3

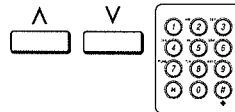
Press **SET**, then use the search buttons to display the item you want to set or change (see the following table).



USER SETTINGS
3.UNIT NAME

4

Press **SET**, then use the search buttons to select menu items and sub-items, and the numeric buttons to enter information.



5

Press **SET**.











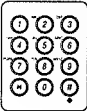



USER SETTINGS

Menu Item Sub-item	Description	Options	Comments
1. DATE & TIME	Enter the date and time.	—	Enter the time (in 24-hour form) and date with the numeric buttons.
2. UNIT TELEPHONE #	Enter your fax number.	—	Enter up to 20 digits.
3. UNIT NAME	Enter your name or your company name.	—	Enter up to 24 characters.
4. TX TERMINAL ID	Prints your fax information at the top of each fax you send.	ON*, OFF	ON: Prints your fax information. OFF: Does not print your fax information.
1. TTI POSITION	Select the position of the TX Terminal ID on your outgoing fax.	OUTSIDE IMAGE*, INSIDE IMAGE	Set where you want the information to print on the faxes you send.
2. TELEPHONE# MARK	Choose the prefix that will appear before the fax number.	FAX*, TEL	Example: FAX 1-800-555-1234 TEL 1-800-555-1234
5. AUTO HALFTONE	Select the type of document you are going to scan. (Can not be set for copying.)	ON*, OFF	Select auto halftone for documents that contain halftone images (such as photographs).
6. SCANNING CONTRAST	Select a setting to fine-tune the contrast of the faxes you send.	DARKER, STANDARD*, LIGHTER	Choose the setting for the type of document you send most often.
7. OFFHOOK ALARM {Not ECG}	Turn the handset off-hook alarm on or off.	ON*, OFF	You may want to turn this off if you work in a quiet office.
8. VOLUME CONTROL	Adjust the volume of the fax's speaker for F/T switching, the keypad touch beep, and alarms.		Adjust the volume to suit your office environment.
1. CALLING VOLUME		MIN, MID*, MAX	
2. KEYPAD VOLUME		OFF, MIN, MID*, MAX	
3. ALARM VOLUME		OFF, MIN, MID*, MAX	
9. RX CALL LEVEL	Adjust the fax's volume sound level of incoming calls for F/T switching.	STANDARD*, HIGH	Adjust the volume to suit your office environment.
10.TEL LINE TYPE	Choose the dialling method.	TOUCH TONE*, ROTARY PULSE (UK) TOUCH TONE, ROTARY PULSE* (EC)	Choose the setting that matches your phone line.
11.R-KEY SETTING	Sets the type of the PBX through which your fax is connected.	PSTN*, PBX	PSTN: Your fax is connected to the outside line. PBX: Your fax is connected through a PBX. You can set the type of the PBX among PREFIX, HOOKING, and EARTH CONNECTION. If you select PREFIX, you can set the number up to 20 digits that will access the outside line. Be sure to enter a pause (P) after the prefix number.
12.M-KEY SETTING (UK only)	Sets an access code and an ID code for the 2300 service of Mercury Communications Limited.	—	You can enter up to 20 digits for an access code and an ID code.

*Default

To Access REPORT SETTINGS:

ACTION	DISPLAY
1 Press FUNCTION and DATA REGISTRATION .  	<div>DATA REGISTRATION</div> <div>1.SPEED DIAL SETUP</div>
2 Use the search buttons to display 3. REPORT SETTINGS.  	<div>DATA REGISTRATION</div> <div>3.REPORT SETTINGS</div>
3 Press SET , then use the search buttons to display the item you want to set or change (see the following table).   	<div>REPORT SETTINGS</div> <div>2.RX REPORT</div>
4 Press SET , then use the search buttons to select menu items and sub-items, and the numeric buttons to enter information.    	
5 Press SET . 	

REPORT SETTINGS

Menu Item Sub-Item	Description	Options	Comments
1. TX REPORT	Set whether the fax prints an activity report for faxes it sends.	PRINT ERROR ONLY*, OUTPUT YES, OUTPUT NO	PRINT ERROR ONLY prints a report only when an error occurs during sending. OUTPUT YES: Prints a report every time you send a fax or after redialling is complete. OUTPUT NO: Prints no report when sending.
REPORT WITH TX IMAGE	If you choose OUTPUT YES or PRINT ERROR ONLY, set whether the first page of the fax also prints.	ON*, OFF	Use the printed first page for filing and reference.
2. RX REPORT	Set whether the fax automatically prints an activity report when it receives a fax.	PRINT ERROR ONLY, OUTPUT YES, OUTPUT NO*	OUTPUT YES: Prints a report every time the fax receives a fax. OUTPUT NO: Prints no reports when receiving. PRINT ERROR ONLY prints a report only when an error occurs when receiving.
3. ACTIVITY REPORT	Set how and when the fax automatically prints activity management reports.		
1. AUTO PRINT	Print a report automatically after every 40 transactions.	ON*, OFF	ON: A report prints after every 40 transactions. OFF: No report is printed automatically.
2. TX/RX SEPARATE	Set how the report will be printed.	ON, OFF*	ON: Transmitted faxes and received faxes are included in separate reports. OFF: All transactions are included in a single report.

*:Default

To Access SEND (TX) SETUP:











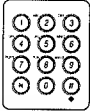

- | | ACTION | DISPLAY |
|----------|--|---|
| 1 | Press FUNCTION and DATA REGISTRATION . | DATA REGISTRATION
1.SPEED DIAL SETUP |
| 2 | Use the search buttons to display 4. SEND (TX) SETUP. | DATA REGISTRATION
4.SEND (TX) SETUP |
| 3 | Press SET , then use the search buttons to display the item you want to set or change (see the following table). | SEND (TX) SETUP
1.ECM TX |
| 4 | Press SET , then use the search buttons to select menu items and sub-items, and the numeric buttons to enter information. | |
| 5 | Press SET . | |

SEND (TX) SETUP

Menu Item Sub-item	Description	Options	Comments
1. ECM TX	Turn Error Correction Mode (ECM) for transmissions on or off.	ON*, OFF	ON: Transmitting is done in error correction mode. OFF: Transmitting is done without error correction.
2. MID PAUSE SET	Set the length of the pause entered by each press of the PAUSE button.	01-15 SEC (02*) {EC} 04-11 SEC (04*) {UK, HK}	
3. AUTO REDIAL	Set whether the fax automatically redials when receiving line is busy or when an error occurs.	ON*, OFF	If you turn AUTO REDIAL on, you can make the additional settings below.
1. REDIAL TIMES	Set the maximum number of redials.	01-15 (02*) TIMES 01-02 (02*) {AUS} 01-03 (02*) {UK, HK} 01-04 (02*) {IRE} 01-05 (02*) {NZ} 01-10 (02*) {SIN}	
2. REDIAL INTERVAL	Set how long the fax waits between rediallings.	02-99 (02*) MIN 01-99 (02*) {AUS, HK, MAL} 06-99 (02*) {NZ}	
3. TX ERROR RESEND	Set whether the fax redials if an error occurs while sending.	ON*, OFF	ON: The fax redials after a sending error. OFF: The fax does not redial.
RESEND TX FROM	Set which pages to resend if TX ERROR RESEND is on.	ERROR & 1ST PG*, ERROR PAGE, ALL PAGES	ERROR PAGE: Resends only the pages after the error occurred on. ERROR & 1ST PG: Resends the first page and the pages after the error occurred on. ALL PAGES: Resends all the document pages.
4. ERASE FAILED TX	Set whether the fax in memory is erased if an error occurs during sending.	ON, OFF* {EC} ON*, OFF {UK,GER}	ON: The fax is automatically erased after being successfully sent (originally an error occurred during sending.) OFF: The document will remain in memory even if an error occurs during sending.
5. AUTO START TX	When sending to multiple numbers, set whether the fax starts scanning the document five seconds after the first number is entered, and ten seconds after the second and all subsequent numbers. If the machine begins scanning before you have entered all numbers, you must scan the document again for those missed numbers.	ON*, OFF	ON: The fax scans the document in five or ten seconds. OFF: The fax does not scan the document in 5 or 10 seconds. Press \diamond (START/COPY) to scan the document. Otherwise, the fax will return to standby mode after 60 seconds.

*:Default

To Access RECEIVE (RX) SETUP:

- | ACTION | DISPLAY |
|--|--|
| 1 Press FUNCTION and DATA REGISTRATION .
  | <div style="border: 1px solid black; padding: 5px; text-align: center;"> DATA REGISTRATION
 1.SPEED DIAL SETUP </div> |
| 2 Use the search buttons to display 5. RECEIVE (RX) SETUP.
  | <div style="border: 1px solid black; padding: 5px; text-align: center;"> DATA REGISTRATION
 5.RECEIVE(RX) SETUP </div> |
| 3 Press SET , then use the search buttons to display the item you want to set or change.
   | <div style="border: 1px solid black; padding: 5px; text-align: center;"> RECEIVE (RX) SETUP
 2.RX MODE </div> |
| 4 Press SET , then use the search buttons to select menu items and sub-items, and the numeric buttons to enter information.
    | |
| 5 Press SET .
 | |





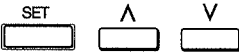

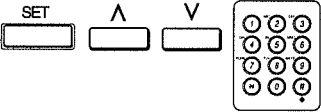

RECEIVE (RX) SETUP

Menu Item Sub-item	Description	Options	Comments
1. ECM RX	Turn Error Correction Mode (ECM) receiving on or off.	ON*, OFF	ON: Receiving is done in error correction mode. OFF: Receiving is done without error correction.
2. RX MODE	Set how the fax handles incoming calls.	AUTO FAX RX*, FAX/TEL AUTO SW,	AUTO FAX RX: Treats all calls as faxes. FAX/TEL AUTO SW: Switches between fax/phone receiving automatically.

Menu Item	Description	Options	Comments
Sub-item			
2. RX MODE (Cont.)			
If you select FAX/TEL AUTO SW, you can also set items 1. to 3. below:			
1. F/T RING TIME	Set how long the fax rings when it receives a phone call.	10-45 SEC (22*)	Set the time of fax rings.
2. F/T SWITCH ACTION	Set the response when no one lifts the handset within the specified time in 1. F/T RING TIME.	RECEIVE*, DISCONNECT	RECEIVE: the fax switches to receive mode. DISCONNECT: the fax disconnects the call.
3. OUTGOING MESSAGE	Sets the language of the outgoing message to send when a call is received.	OFF*, ON {EC} ON* {UK}	If you select ON {EC}, you can select one or two languages for the outgoing message: English, French, Spanish, German, Italian, Dutch, Finnish, Portuguese, Norwegian Swedish, Danish, and Greek. {UK, EC}
3. FAX INCOMING RING	Set whether the fax rings when it receives a fax.	ON, OFF*	ON: The fax rings when it receives a fax. OFF: The fax does not ring when it receives a fax.
RING COUNT	Set how many times the fax rings when it receives a fax.	01-99 times (02*)	
4. ANS/FAX SWITCH	Set whether the fax switches to automatic fax receive mode when the caller does not talk.	ON*, OFF	ON: The fax switches to automatic fax receive mode when the answering machine is turned on.
ANS/FAX SW TIME	Set how long the fax waits before switching to automatic fax receiving mode when the caller does not talk.	01-99 SEC (06*)	Set a time from 01 to 99 seconds.
5. MAN/AUTO SWITCH	Set whether the fax switches from manual receive mode to document receive mode after ringing for a set time.	ON, OFF*	ON: The fax switches to document receive mode after ringing for a set time. OFF: In manual receive mode, the fax does not switch to document receive mode.
RING TIME	Set how long the fax rings before switching to document receiving.	01-99 SEC (10*)	Set a time from 01 to 99 seconds.
6. REMOTE RX	Set whether remote receiving is on or off.	ON*, OFF	With ID #remote receiving ON, you can dial a number code on a remote extension to receive a fax.
REMOTE RX ID	Lets you change the remote receiving ID (ID CALL #).	00-99 (25*)	Enter a new ID from 00 to 99.
7. MEMORY RX	Set whether the fax stores the remainder of an incoming fax in memory if paper runs out during reception.	ON*, OFF	ON: The fax stores the remainder of the fax if paper runs out. OFF: The fax does not store the remainder of the fax if paper runs out.
8. RX PAGE FOOTER	Sets the fax to print the time a document is received, the transaction number, page numbers, and other useful information.	ON, OFF*	OFF: Prints no footer information ON: Prints footer information

*:Default

To Access FAX PRINTER SETUP:











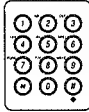

- | ACTION | DISPLAY |
|--|--|
| 1 Press FUNCTION and DATA REGISTRATION .
 |  |
| 2 Use the search buttons to display 6. FAX PRINTER SETUP.
 |  |
| 3 Press SET , then use the search buttons to display the item you want to set or change.
 |  |
| 4 Press SET , then use the search buttons to select menu items and sub-items, and the numeric buttons to enter information.
 | |
| 5 Press SET .
 | |

FAX PRINTER SETUP

Menu Item Sub-item	Description	Options	Comments
1. SELECT PAPER SIZE	Select size of paper being used.	LTR, LGL, A4*	Select either Letter-, Legal-, or A4-size paper. The paper cassette needs to be adjusted for paper sizes other than A4. For more details, contact an authorised Canon Facsimile Service Dealer.
2. AUTO RX REDUCTION	Reduce received faxes to fit on the recording paper.	ON*, OFF	ON: Documents are reduced to fit the recording paper. OFF: Documents are not reduced to fit the recording paper. In this case, one page may be printed on two pages.
3. TONER SAVER	Set whether economy print is on or off. If set to on, you can print about twice as many pages.	ON, OFF*	ON: Decreases the amount of toner used during printing. (Note: With this setting, print quality may deteriorate even before the toner cartridge runs out.) OFF: Prints normally.
4. TONER SUPPLY LOW	Determine if printing continues when the toner level drops in the cartridge.	RECEIVE IN MEMORY*, PRINT AUTOMATICALLY	RECEIVE IN MEMORY: Receives the documents in memory as soon as the toner level in the cartridge is low. KEEP PRINTING: Continues printing even after the toner level in the cartridge is low. (Note: With this setting, print quality may deteriorate even before the toner cartridge runs out.)

*:Default

To Access SYSTEM SETTINGS:

- | | ACTION | DISPLAY |
|---|---|--|
| 1 | Press FUNCTION and DATA REGISTRATION . | |
| |   | <div style="border: 1px solid black; padding: 5px; width: fit-content;"> DATA REGISTRATION
1.SPEED DIAL SETUP </div> |
| 2 | Use the search buttons to display 7. SYSTEM SETTINGS. | |
| |   | <div style="border: 1px solid black; padding: 5px; width: fit-content;"> DATA REGISTRATION
7.SYSTEM SETTINGS </div> |
| 3 | Press SET , then use the search buttons to display the item you want to set or change. | |
| |    | <div style="border: 1px solid black; padding: 5px; width: fit-content;"> SYSTEM SETTINGS
5.TX START SPEED </div> |
| 4 | Press SET , then use the search buttons to select menu items and sub-items, and the numeric buttons to enter information. | |
| |     | |
| 5 | Press SET . | |
| |  | |

SYSTEM SETTINGS

Menu Item Sub-item	Description	Options	Comments
1. UN/LOCK PHONE	Restricts sending documents and dialling (with the optional handset or extension telephone). Does not restrict incoming calls.		After a password is set, you have to enter it before you can access the menu below.
1. PASSWORD	Register a password.	0000-9999	Set a four-digit password.
2. LOCK PHONE	Lets you restrict sending documents and dialling.	ON, OFF*	OFF: Anyone can send documents or dial normally. ON: No one can send documents or dial until the setting is set to OFF.
2. RX RESTRICTION	Enable/disable reception that is restricted to only numbers registered in your fax for One-Touch or Coded Speed Dialling to avoid receipt of "junk" mail.	ON, OFF*	OFF: Anyone can dial your fax and send a document. ON: A party can dial your fax and send a document only if their number is registered on your fax speed dialling.
3. DATE FORMAT	Set the format used for dates displayed on the fax and printed on faxes you send.	DD/MM 'YY*, MM/DD YY, 'YY MM/DD	YY: Year MM: Month DD: Day
4. DISPLAY LANGUAGE	Set the language for the message displayed in the LCD during operation of the fax.	ENGLISH*, FRENCH, SPANISH, ITALIAN, FINNISH, GERMAN, DANISH, SWEDISH, DUTCH, NORWEGIAN, PORTUGUESE, SLOVENE	Choice of 12 languages.
5. TX START SPEED	Set the transmission speed used to send faxes.	14400 bps*, 9600 bps, 7200 bps, 4800 bps, 2400 bps	The higher the setting, the faster the transmission. If you experience problems when sending faxes, try a lower setting.
6. RX START SPEED	Set the speed used to receive faxes.	14400 bps*, 9600 bps, 7200 bps, 4800 bps, 2400 bps	The higher the setting, the faster the fax is received. If transmission errors occur frequently, set a lower speed.

*:Default



Specifications

Appendix

B

The specifications for the FAX-L300 are listed in this section.

Specifications

Document size:	Maximum width	259 mm
	Minimum width	146.5 mm
	Minimum length	105 mm
Effective image size: (When scanning)	Width (A4) 208 mm	
Recording paper size:	Width (A4) 210 mm	
Transmission time:	ECM-MMR	approx. 6 sec./page*
	G3 MR Standard mode	approx. 12 sec./page*
	G3 MH Standard mode	approx. 15 sec./page*
Scanning line density:		
Horizontal	8 dots/mm	
Vertical	Standard	3.85 line/mm
	Fine	7.7 line/mm
Scanning method:	Solid state electronic scanning by contact image sensor	
Recording method:	Laser beam printing	
Applicable lines:	Subscriber's telephone circuit (PSTN)	
Auto dial functions:	One-Touch Speed Dialling (Registration for 20 numbers)	
	Coded Speed Dialling (Registration for 100 numbers)	
Power source:	200-240 V/50-60 Hz	
Power consumption:	Standby	approx. 6 W
	Operation	approx. 540 W (20% of document black copy)
Operating environment:	Temperature	10-32.5°C
	Humidity	20%-80% RH
Weight:	Approx. 12 kg	
Dimensions: (W × D × H)	383 mm × 445 mm × 269 mm	
	(Without optional handset or trays)	
Image memory capacity (transmission/reception)	Standard: 42 pages*	
	138 pages* (with 2 MB extension memory)	

* Based on Canon FAX Standard Chart No. 1, standard mode

Specifications subject to change without notice.

Options

Appendix

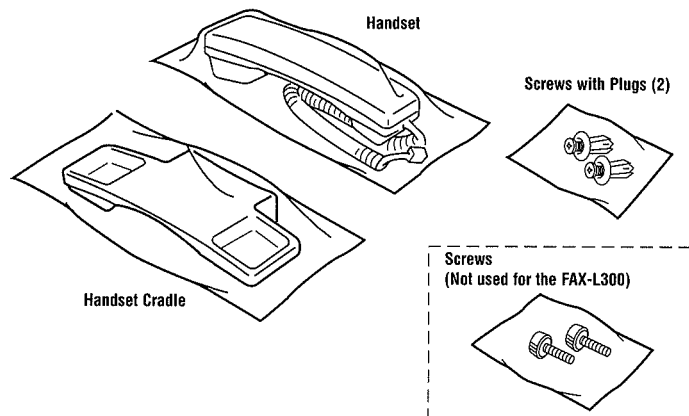
C

Handset

You may want to attach a handset to your fax unit instead of using an extension telephone.

Package Contents

Make sure you have the following items. If anything is damaged or missing, notify your Canon dealer immediately.



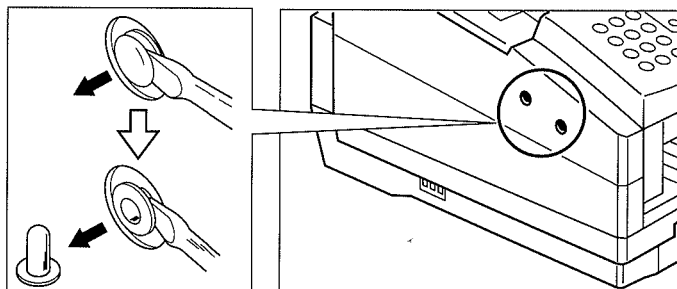
The two screws with a plastic white head are not for use with this fax model. You only need the two screws with plugs provided.

Attaching the Handset to the Fax

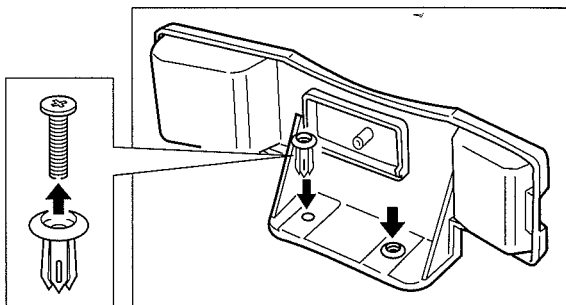
To attach the handset to the FAX-L300 fax, follow these steps:

1

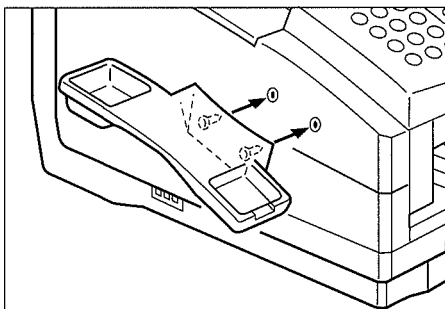
Use a screwdriver to remove the two covers on the left side of the fax unit.



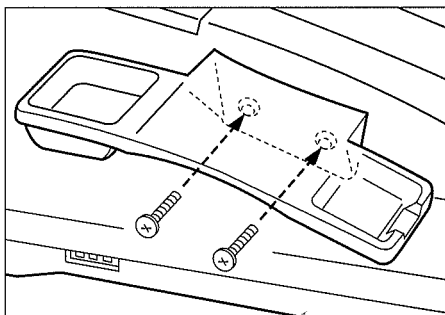
- 2** Remove the plugs from the screws and insert them in the holes on the handset cradle.



- 3** Insert the plugs with the handset cradle in the holes on the fax.



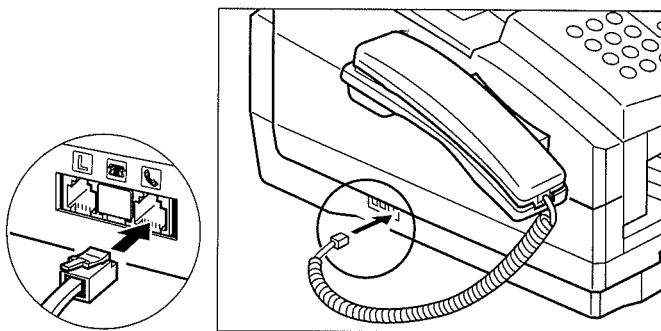
- 4** Insert the screws into the plugs and push them in with your finger.



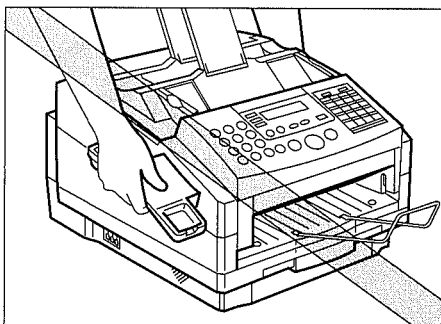
If you can't push the screws in with your finger, use a Phillips screwdriver.

5

Connect the handset cord to the input jack marked  on the left side of the fax.

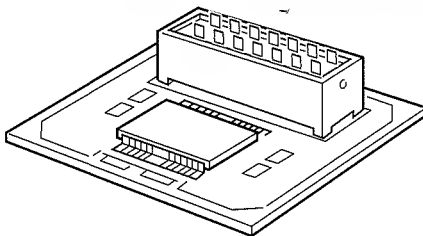


When carrying the fax unit, do not lift it by the handset cradle as it may break.

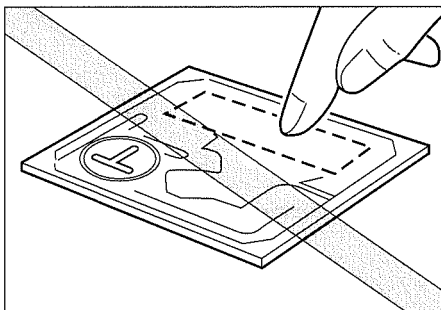


Memory Board

You may want to increase your fax's memory if you send, receive or copy a lot of complex graphics. You can increase the fax's memory by adding a 2MB memory board.



- Before touching the memory board, remove any static electricity from your hands by touching a grounded metal object. Static electricity can damage the memory board.
- Hold the edges of the memory board. Do not touch the delicate electronic circuitry with your fingers.



Installing the Memory Board

To install the memory board in the FAX-L300 fax, follow these steps:



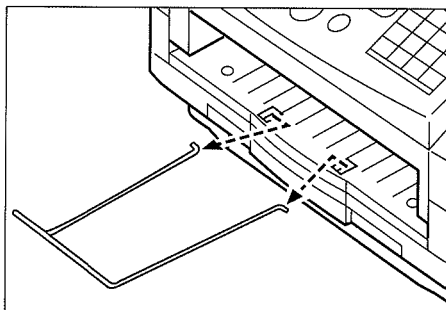
- Make sure the MEMORY lamp is off. If it is on, refer to page 5-21 for instructions on printing the documents in memory.
- Remove any documents or printed pages from the fax before installing the memory board.
- If documents remain stored in memory when the memory board is installed, the fax will print out the Memory Clear report when the fax is next plugged in.

1

Unplug the fax.

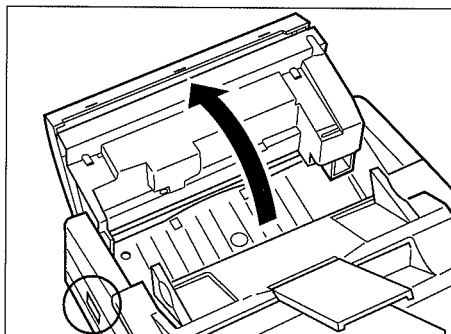
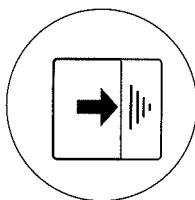
2

Remove the document support for scanned documents from the fax.

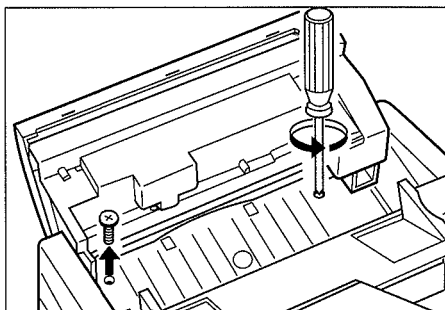


3

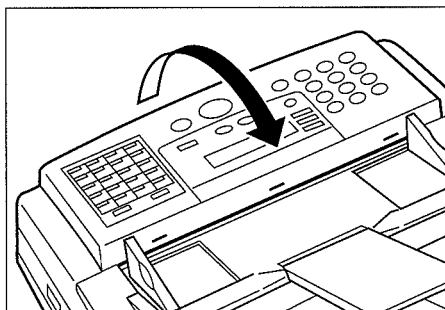
Use the front cover release latch to open the front cover.



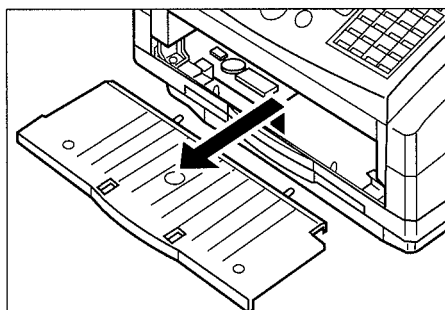
-
- 4** Remove the two screws on the inner cover.



-
- 5** Close the front cover.



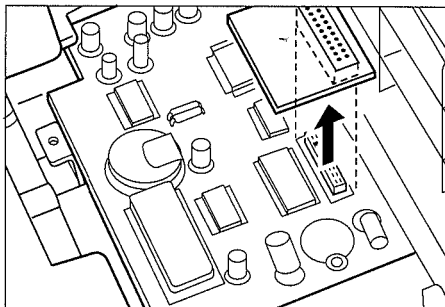
-
- 6** Lift the inner cover slightly and remove it from the fax.



-
- 7** Open the front cover again.

8

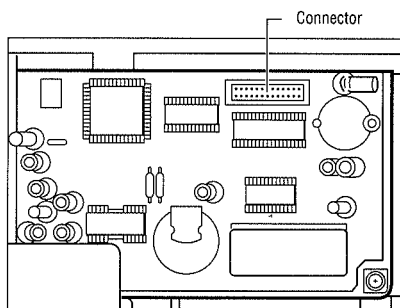
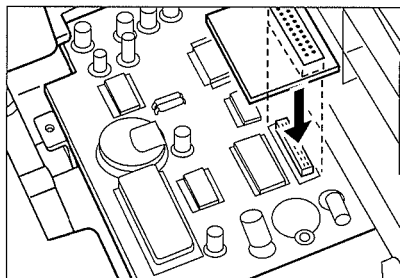
Remove the 0.5 MB memory board already installed in the unit.



- Before touching the memory board, remove any static electricity from your hands by touching a grounded metal object. Static electricity can damage the memory board.
- Hold the edges of the memory board. Do not touch the delicate electronic circuitry with your fingers.
- When removing/connecting the memory board, be careful not to touch the components around the connector on the fax.

9

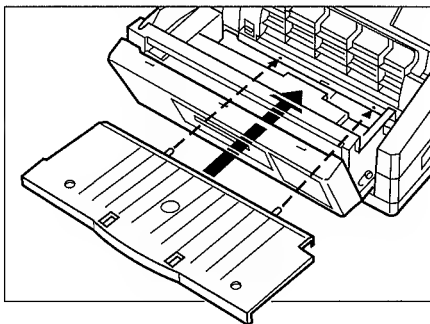
Hold the edges of the memory board and connect it to the connector.



Top view

10

Replace the inner cover by holding the front cover horizontal and inserting the tabs on the inner cover into the slots on the fax.

**11**

Replace the screws.

12

Plug in the fax and make sure it is working properly.

13

Print the User's data list as described on page 6-7, and check the memory amount. It should say "TOTAL FAX MEMORY: 2.156 MB."



Glossary



Glossary

auto halftone	Auto halftone automatically distinguishes between the text areas and halftone areas (photographs, etc.) of a document, and scans accordingly. For text areas of a document, the fax scans faster, and for halftone areas, it scans more precisely. However, if the ground colour of the document is dark, the transmission speed will be slower.
automatic dialling	<p>Dialling numbers at the press of one or a few buttons. To use automatic dialling, you must register the numbers in the fax's memory. The fax has three types of automatic dialling:</p> <ul style="list-style-type: none">● One-Touch Speed Dialling: Allows you to dial by pressing a single button.● Coded Speed Dialling: Allows you to dial by pressing the CODED DIAL button and then entering a two-digit code.● Group Dialling: Allows you to dial a group of numbers by pressing a single button.
automatic image reduction	The fax can print the date, time, company name, and a fax number at the top of the faxes it receives. To prevent this information from crowding the faxed image off the page and onto the next (thus possibly lengthening the fax), the fax automatically reduces the size of the image on the page.
automatic redialling	When the receiving fax machine is busy or does not answer, or when an error occurs while sending, the fax waits 2 minutes and then automatically redials the number. If the receiving fax is still busy or doesn't answer, the fax waits another two minutes and dials again. If the fax doesn't go through again, the fax prints an activity report.
bps	<i>Bits per second.</i> Refers to the speed with which a fax machine sends and receives data.
Coded Speed Dialling	Allows you to dial a fax number by pressing the CODED DIAL button and entering a two-digit code. The fax can store up to 100 fax numbers for Coded Speed Dialling.
delayed transmission	The fax can scan in a document for sending to one or more numbers at a later, preset time.
document	The sheet of paper that you want to send through the fax.
document density	The lightness or darkness of the faxes, which can be controlled through the fax's settings.
dual access	Enables the fax to receive a fax, even if it is already copying or printing. Also enables you to load other faxes into memory, make copies, print out reports, print documents or register information while the fax sends a fax from memory.
ECM	<i>Error Correction Mode.</i> Reduces system and line errors when sending or receiving from fax machines that have ECM capability. When using ECM, the fax checks each page of incoming or outgoing faxes for lost data; when it finds data that has been lost from a portion of a page, the fax transmits that portion again after confirming that all data within that portion can be transmitted successfully.

FAX/TEL auto switch over	<p>This feature automatically detects whether a call is from a fax machine or a telephone. If the call is from a fax machine, the fax is automatically received; if the call is from a telephone, the fax rings and you can answer the call using the handset. This feature allows the fax to use a single line for both fax and phone calls, and also enables you to use these variations:</p> <ul style="list-style-type: none"> ● Voice answering: When the fax receives a call, it responds with a built-in voice message: <i>"You are connected. Please hold,"</i> ● Ring back tone: While the fax rings, the fax sends an artificial ring back tone to the caller. ● Silent reception: The fax receives faxes without ringing.
Group Dialling	<p>Allows you to dial up to 119 One-Touch Speed Dialling or Coded Speed Dialling numbers at once, with the press of a single button.</p>
manual receiving	<p>A method of receiving faxes in which you answer all incoming calls using the handset, and receive faxes by pressing START/COPY and then hanging up the handset.</p>
manual sending	<p>A method of sending faxes in which you dial the number, you speak with the other party and then press START/COPY to begin sending the document. Use manual sending if the memory is full, but you still want to send a document. Manual sending scans and sends one page at a time. The document is not scanned into the memory, so it takes a little more time to get your original document back.</p>
memory broadcast	<p>Allows you to send a scanned fax to as many as 121 locations at once, using a combination of One-Touch Speed Dialling, Coded Speed Dialling, or regular dialling.</p>
memory list	<p>Shows the faxes stored in the fax's memory, along with the following information for each:</p> <ul style="list-style-type: none"> ● Transaction number ● How the fax was stored ● Name and number the fax was sent to (for One-Touch Speed Dialling or Coded Speed Dialling) ● Number of pages ● Date and time each document was stored in the memory and when it will be sent ● Any errors that occurred when sending the document
memory sending	<p>A method of sending faxes in which you scan the document into the memory before the fax dials the number and sends the fax. Compare <i>manual sending</i>.</p>
One-Touch Speed Dialling	<p>Allows you to dial a fax number by pressing a single One-Touch Speed Dialling button. The fax can store up to 20 fax numbers for Coded Speed Dialling.</p>
PAUSE	<p>Pressing the PAUSE button enters a pause between digits of a telephone number.</p>
polling	<p>One fax machine requesting another to send a document. The receiving party calls the fax machine holding the document to be sent, and requests that it be sent.</p>

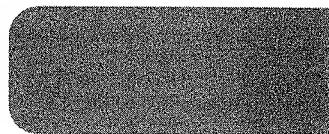
Glossary

quick-on-line sending	After a document is set in the automatic document feeder (ADF), the fax begins to scan the entire document into the memory. As the first page of a multiple document is being scanned, your FAX-L300 will begin to call the other party, and transmit the information even as the remaining pages are being scanned. The fax scans the document quickly so you can get it back in a few moments and return to work.
regular dialling	Dialling a number by using the numeric buttons.
remote receiving ID	The number you can dial from an extension phone to start receiving a fax.
remote reception	Receiving a fax by answering the extension phone. You may have to dial a remote receiving ID number to start remote reception.
reports	A document printed by the fax and containing information about the faxes it has sent and received.
sender ID	Information printed at the top of a fax: <ul style="list-style-type: none">• Date and time the fax was sent• Your fax/phone number• Your name• The other party's name• Page number
sending speed	The rate at which faxes are transmitted through the phone line. See also <i>bps</i> .
smoothing	A function that allows the fax to print high-resolution images.
standby mode	The mode the fax is in when not currently performing an operation. The display shows the date and time in this mode.
timed sending	See <i>delayed transmission</i> .
TONE dialling button	Enables you to switch temporarily from pulse to tone dialling.
transaction number	A unique number assigned to each fax sent (TX NO.) or received (RX NO.) by the fax, and used to identify that fax.



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1



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FAX-L350

SERVICE MANUAL

REVISION 0

FAX-L350	H12-1573	230V	EC
FAX-L350	H12-1574	230V	UK
FAX-L350	H12-1575	230V	GER
FAX-L350	H12-1577	230V	FRN
FAX-L350	H12-1578	230V	AUS
FAX-L350	H12-1579	230V	AE
HANDSET APPARATUS			

Canon

DEC. 1999

HY8-10AM-000

Application

This manual has been issued by Canon Inc. for qualified persons to learn technical theory, installation, maintenance, and repair of products. This manual covers all localities where the products are sold. For this reason, there may be information in this manual that does not apply to your locality.

Corrections

This manual may contain technical inaccuracies or typographical errors due to improvements or changes in products. When changes occur in applicable products or in the content of this manual, Canon will release technical information as the need arises. In the event of major changes in the contents of this manual over a long or short period, Canon will issue a new editions of this manual.

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DTP System

This manual was produced on an Apple Macintosh® personal computer, final pages were printed on Canon SUPER LASER SHOT B406 PS.

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I. MEANING OF MARKS

The marks used in this manual have the following meanings.

Mark	Meaning
	States a precaution to be taken to prevent danger to personnel, damage to the product, or damage to electronic components by discharge of static electricity. for example.
	States a precaution to be taken to prevent damage to electronic components by electrostatic discharge.
	Informs you of fire-related cautions.
	Informs you that the plug must be removed from the power outlet before starting an operation.
 NOTE	Gives useful information to understand descriptions.
 REFERENCE	Indicates sections to be read to obtain more detailed information.

II. ABOUT THIS MANUAL

This manual is divided into five parts, and contains information required for servicing the product.

Each of the above parts is further divided into the following four chapters:

Chapter 1: General Description

This part explains product specifications and the how to service the unit safely. It is very important, so please read it.

Chapter 2: Technical Reference

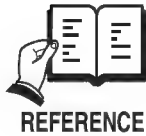
This part explains the technical theory of the product.

Chapter 3: Maintenance and Service

This part explains how to maintain the products for adjustment and troubleshooting and service operations and service switches.

Chapter 4: Appendix

This part explains the informations of the optional products and user data flow.



-
- For more details of user operations and user reports, see the separate volume of *USER'S GUIDE*.
 - Procedure for assembly/disassembly and greasing points are not given in this manual. See the illustrations in the separate volume of *PARTS CATALOG*.
 - Detailed description of each SSSW/parameter is not given in this manual except the new SSSWs/parameters added to this model.
See *G3 Facsimile Service Data Handbook (supplied separately)* for details them.
 - See the *G3 Facsimile Error Code List (Rev.1, supplied separately)* for details of the error codes not shown in this manual.
 - Detailed description of connector Locations and Signal Descriptions in not given in this manual.
See the *Circuit Diagram* for details them.
-

III. REVISION HISTORY

<i>REVISION</i>	<i>CONTENT</i>
<i>0</i>	<i>Original</i>

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Chapter 1

General Description

1. FEATURES

1.1 Overview

This product is a G3 transmitting facsimile based on the ITU-T recommendation. It can be used in telephone networks.

High image quality

Ultra-high quality image processing. Gives faithful reproduction of documents.

Plain paper printing with LBP

The printer section uses an LBP which employs an on-demand fixing system, operating the fan and fixing heater only when printing, and prints on plain paper.

Excellent print quality and speed

The FAX-L350 offers 600×600 dpi laser beam printing, providing you with high resolution text and graphics. The exceptional printing speed of 6 pages per minute allows you to work more effectively.

Toner detection function

This unit uses a magnetic (permeability) sensor to detect remaining toner.

Automatic dialing

There are 32 one-touch dial locations, and 100 coded-speed dial locations. Registered numbers can be retrieved using the telephone directory feature.

Improved speed

This fax unit is equipped with the ITU-T standard V.34 mode which enables transmission speeds up to 33,600 bps, more than double the rate of older G3 fax models.

Improved data compression

JBIG, a new data compression method, compresses data to approximately one-fifth the block size attained with MMR data compression. The smaller block size requires less transmission time, and this means saving you time and money.

Memory reception

No need to worry about toner or recording paper running out in the middle of a reception. Received documents are stored in memory until they can be output later.

Delayed transmission

Documents can be sent automatically, at a preset time. This means that documents can be sent late at night, thus reducing transmission costs.

2. SPECIFICATIONS

2.1 General Specification

Type	Desktop
Body colour	Art gray
Power source	180 ~ 264V AC, 45 ~ 65 Hz,
Power consumption	standby less than 7.5W / less than 495W (when operating)
Usage environment	50.0°F ~ 90.5°F (10°C ~ 32.5°C), 20%~85% RH Horizontal ±3° or less
Operating noise	Measured in accordance with ISO standards Standby : 30 dB(A) or less Operating : 48 dB(A) or less
Dimensions (W × D × H)	14.96" × 19.02" × 11.95" (380 mm × 483 × 303.5 mm) (Not including Trays)
Weight	28.66 lbs (13 kg) Including trays

2.2 Communication Specification

Applicable lines	PSTN (Public Switched Telephone Network) PBX (Private Branch Exchange)
Handset	CT-19 (option)
Transmission method	Half-duplex
Transmission control protocol	ITU-T T30 binary protocol/ECM protocol
Modulation method	
G3 image signals	ITU-T V.27ter (2.4k, 4.8k bps) ITU-T V.29 (7.2k, 9.6k bps) ITU-T V.33 (12k, 14.4k bps) ITU-T V.17 (TC7.2k, TC9.6k, 12k, 14.4k bps) ITU-T V.34 (2.4k, 4.8k, 7.2k, 9.6k, 12k, 14.4k, 16.8k, 19.2k, 21.6k, 24k, 26.4k, 28.8k, 31.2k, 33.6k bps)
G3 procedure signals	ITU-T V.21 (No.2) (300bps) ITU-T V.8,V34 (300, 600, 1200 bps) (With automatic fallback function)
Coding	ITU-T T.4 Coding method (MH, MR) ITU-T T.6 Coding method (MMR) ITU-T T.82/T.85 Coding method (JBIG)
Error correction	ITU-T T30 (ECM)
Canon express protocol (CEP)	None

Time required for transmission protocol

Mode	Pre-message Protocol *1	Post-message Protocol *2 (between pages)	Post-message Protocol *3 (after pages)
T.30 Standard	approx. 12 sec.	approx. 4 sec.	approx. 3.5 sec.
V.34 JBIG	approx. 9 sec.	approx. 1 sec.	approx. 1 sec.

*1 Time from when other facsimile is connected to the line until image transmission begins.

*2 Post-message (between pages): Time from after one document has been sent until transmission of the next document starts if several pages are transmitted.

*3 Post-message (after last pages): Time from after image transmission is completed until line is switched from facsimile to telephone.

Minimum transmission time	10 msec. (MH,MR), 0 msec. (MMR)
Transmission output level	from -15 to 0 dBm
Receive input level	from -43 to -3 dBm
Modem IC	R288F

2.3 Scanner Specification

Type	Sheets	
ADF capacity	Max. 30 sheets (A4/Letter)	
	Max. 20 sheets (Legal)	
Effective scanning width	Letter/Legal	8.42" (214 mm)
	A4	8.19" (208 mm)
Scanning method	Contact sensor scanning method	
Scanning line density		
Horizontal:	8 dot/mm (203.2 dpi) / 16 dot/mm (406.4 dpi)	
Vertical:	Standard	3.85 line/mm (97.79 dpi)
	Fine	7.7 line/mm (195.58 dpi)
	Superfine/Ultrafine	15.4 line/mm (391.16 dpi)
Scanning speed	Standard	5 sec./page
	Canon FAX Standard Chart No. 1 scanning	
Image modes	Halftone (PHOTO mode)	
Scanning density adjustment	3 density level	
Halftone	64-gradation error diffusion system (UHQ)	

Scanning range

Sheet dimensions (W × L)

Maximum	8.58" ×14.41" (218 mm × 336 mm)
Minimum	3.5" ×1.75" (88.9 mm × 63.5 mm)
Thickness	
multiple pages:	0.002" ~ 0.005" (0.06 mm ~ 0.13 mm)
	40~90 g/m ²
1 pages:	0.002" ~ 0.017" (0.06 mm ~ 0.43 mm)
	34.7~340 g/m ²

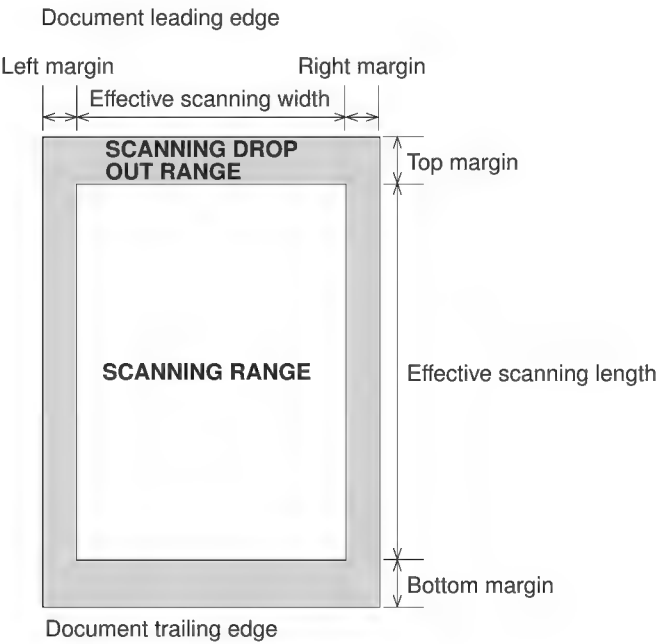


Figure 1-1 Scanning Range

Item	A4	Letter	Legal
Effective scanning width	8.19" (208 ±1.0 mm)	8.42" (213.9 ±1.0 mm)	8.42" (213.9 ±1.0 mm)
Effective scanning length	11.53"±0.12" (293 ±3.0 mm)	10.84"±0.12" (275.4 ±3.0 mm)	13.84"±0.12" (351.6 ±3.0 mm)
Left margin	0.04" ±0.08" (1.0 ±2.0mm)	0.04" ±0.08" (1.0 ±2.0mm)	0.04" ±0.08" (1.0 ±2.0 mm)
Right margin	0.04" ±0.10" (1.0 ±2.5 mm)	0.04" ±0.10" (1.0 ±2.5 mm)	0.04" ±0.10" (1.0 ±2.5 mm)
Top margin	0.08" ±0.08" (2.0 ±2.0 mm)	0.08" ±0.08" (2.0 ±2.0 mm)	0.08" ±0.08" (2.0 ±2.0 mm)
Bottom margin	0.08" ±0.08" (2.0 ±2.0 mm)	0.08" ±0.08" (2.0 ±2.0 mm)	0.08" ±0.08" (2.0 ±2.0 mm)

Units are inches with mm shown in parentheses.



- Document scanning width “A4/LTR” is set in service data #1 SSSW SW06, bit4.
- Skew area is not taken into consideration.
- The feed precision of the original is included in the scanning range values.

2.4 Printer Specification

Printing method		LASER Beam Printer		
Printing Cartridge				
Products name		Canon FX3 Cartridge		
Product code		H11-6381-001		
Valid period		Displayed on carton (2.5 years from date of manufacture)		
Storage conditions		Temperature	from 32.0°F to 95.0°F (0°C to 35°C)	
		Humidity	from 35% to 85% RH	
Yield		Approx. 2700 pages (black rate 4% chart)		
Toner detection		Yes (Toner out detect)		
Printing speed		Approx. 6 pages/minute		
Printing resolution		Standard	8 dots/mm × 3.85 line/mm	
		Fine	8 dots/mm × 7.7 line/mm	
		Superfine	8 dots/mm× 15.4 line/mm	
		Ultrafine	16 dots/mm × 15.4 line/mm	
Paper output tray stacking (when using the recommended paper)				
Face down delivery slot		Approx. 50 sheets		
Face up delivery slot		1 sheet		
Paper tray				
Paper supply method		ASF (Auto Sheet Feeder)		
Kind of paper tray		MULTI-PURPOSE TRAY		
Paper capacity		Max. 0.40" (10 mm) thickness		
	Plain Paper	Lavel Paper	Envelopes	Transparency
MULTI-PURPOSE TRAY	Approx. 100 sheets	Approx. 70 sheets	Approx. 7 envelopes	1 sheet
Paper cassette capacity				
1.08" (27.5 mm) or less in stacking height (Approx. 250 sheets)				
Recommended paper				
KANGAS				
Weight		80 g/m ²		
Paper size		A4		
Manufactured by		KANGAS		
NEUSIEDLER Canon Paper				
Weight		80 g/m ²		
Paper size		A4		
Manufactured by		NEUSIEDLER		

Printing range

Paper dimensions (W × L)

Maximum	8.50" × 14.02" (216 mm × 356 mm)
Minimum	3.64" × 5.0" (92.4 mm × 127 mm)
Letter	8.50" × 10.98" (216 mm × 279 mm)
Legal	8.50" × 14.02" (216 mm × 356 mm)
A4	8.27" × 11.69" (210 mm × 297 mm)

Thickness

MULTI-PURPOSE TRAY	64~90g/m ²
MANUAL FEED SLOT	64~105g/m ²

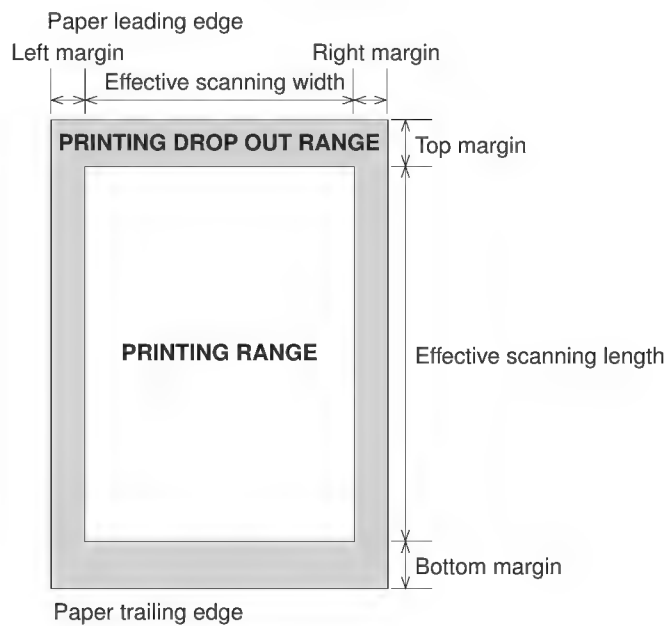


Figure 1-2 Printing Range

Item	A4	Letter	Legal
Effective printing width	8.11" ±0.08" (206 ±2.0 mm)	8.19" ±0.08" (207.9 ±2.0 mm)	8.19" ±0.08" (207.9 ±2.0 mm)
Effective printing length	11.38" ±0.12" (289 ±3.0 mm)	10.69" ±0.12" (271.4 ±3.0 mm)	13.69" ±0.14" (347.6 ±3.5 mm)
Left margin	0.08" ±0.08" (2.0 ±2.0 mm)	0.16" ±0.08" (4.0 ±2.0 mm)	0.16" ±0.08" (4.0 ±2.0 mm)
Right margin	0.08" ±0.12" (2.0 ±3.0 mm)	0.16" ±0.12" (4.0 ±3.0 mm)	0.16" ±0.12" (4.0 ±3.0 mm)
Top margin	0.08" ±0.08" (2.0 ±2.0 mm)	0.08" ±0.08" (2.0 ±2.0 mm)	0.08" ±0.08" (2.0 ±2.0 mm)
Bottom margin	0.24"±0.16" (6.0 ±4.0 mm)	0.24"±0.16" (6.0 ±4.0 mm)	0.24"±0.18" (6.0 ±4.5 mm)

Units are inches with mm shown in parentheses.



NOTE

- The header is printed in the printing range.
- Skew area is not taken into consideration.
- The feed precision of the original is included in the scanning range values.
- Print area when all-black pattern from Test Print modes are outputted.

2.5 Copy Specifications

Color copy	None	
Multiple copy	99 copies	
Copy resolution	Scanning	600 dpi × 600 dpi (direct copy) 300 dpi × 600 dpi (memory copy)
	Printing	600 dpi × 600 dpi
Copy magnification ratio	100%, 90%, 80%, 70%	



NOTE

- When one copy is specified at a magnification ratio of 100%, the direct copy mode is entered. When two or more copies are specified, the memory copy mode is entered.
- When the magnification ratio is 90%, 80% or 70%, the memory copy mode is entered.
- When long originals are scanned in the direct copy mode, only the area that can be printed on a single page is copied, and copies are not made over multiple pages.

2.6 Interface Specifications

The parallel interface sends 8 bits (one byte) of data at one time and is transistor-transistor-logic (TTL) compatible.

Interface type

IEEE P1284/Bi-directional parallel

Data transmission

8-bit parallel interface (IBM PC or compatible)

Synchronizing signal

STROBE signal from the computer

Handshake

BUSY/ACKNLG

Interface connectors

Printer side	Amphenol 57-40360 or equivalent
Cable side	Amphenol 57-30360 or equivalent

Recommended interface cable

Type	Twisted-pair shielded cable
Material	AWG No.28 or larger
Length	Up to 6.56 feet (2.0 m)

Signal voltage levels

Low level	0.0 V to +0.4 V
High level	+2.4 V to +5.0 V

2.7 Function

Dialling

Manual dialling	Numeric button
Auto dialing	Max. 120 digits (Ave. 39 digits)
	One-touch: 32
	Coded speed: 100
Group dial	Max. 131 locations
Redial	Numeric button redial function (Max. 120 digits)

Transmission

Broadcast transmission	Max. 133 locations (One-touch:32, Coded speed:100, Numeric button:1)
Delayed transmission	No. of Destination Max. 133
	No. of Reservation Max. 20
Confidential Tx/Rx	Yes (by Subaddress Sending)
Relay broadcasting originating	Yes (by Subaddress Sending)
Password/Subaddress sending	Max. 20 digits

Reception

FAX/TEL switching	Yes
Method	CNG detection
Message	None
Pseudo CI	None
Pseudo ring	Yes
Pseudo ringback tone	Yes
Reduction settings for reception	Yes
Automatic reduction of reception images	Yes (100%~70%)
Built-in Answering machine	None
Answering machine connection	Yes (Telephone answering priority type)
Remote reception	Yes (Remote ID method)
Memory lock reception	None
Reception printing in reverse order	Yes (When using face-down delivery slot)

Polling

Polling transmission	Yes
	The document is accumulated into the memory ahead of time, then transmitted when there is a polling request from the other party.
Polling reception	Yes
	Receives from a fax in automatic transmission mode
Subaddress (ITU-T standard)	Max. 20 digits
Password (ITU-T standard)	Max. 20 digits

Others	
Dual access	
File No. of reservation	Max. 20 files
Closed network	None
Direct mail prevention	
Telephone numbers compared	Telephone numbers registered under one-touch and coded speed dial, and aTSI signal
Number of digits	Lower 6 digits (number of digits can be changed with service data #3)
Memory box	None
Memory backup	
Backup contents	Dial registration data, User data, Service data, Time
Backup IC	218160 bit SRAM for control (with built-in CPU)
Backup device	Lithium battery 3 V DC/ 220 mAh
Battery life	Approx. 5 years
Image data backup	
Backup contents	Memory reception, memory copy, delayed transmission and broadcast transmission image data, activity management report
Backup IC	2.5 M byte DRAM
Backup device	Rechargeable capacitor 2.5 V/4F
Battery life	40 cycles with 100 % discharge (Temperature 77°F (25°C))
Activity management	Yes
a) User report	
Activity report (Every 20 transactions: always transmission and reception together)	
Activity report (sending/receiving)	
One-touch speed dialing list	
Coded speed dialing list	
Group dialing list	
User's data list	
Error report	
Memory clear list	
Multi activity report	
Document memory list	
b) Service report	
System data list	
System dump list	
Error list	
Transmitting terminal identification	Yes
Time	
Management data	Year/month/date/day/hour/minute (24 hour display)
Precision	±60 sec per month
Display	2 row × 20 digits
Completion stamp	None
Program key	None
Demo print function	None
HELP function	None

3. OVERVIEW

3.1 External View

Front View

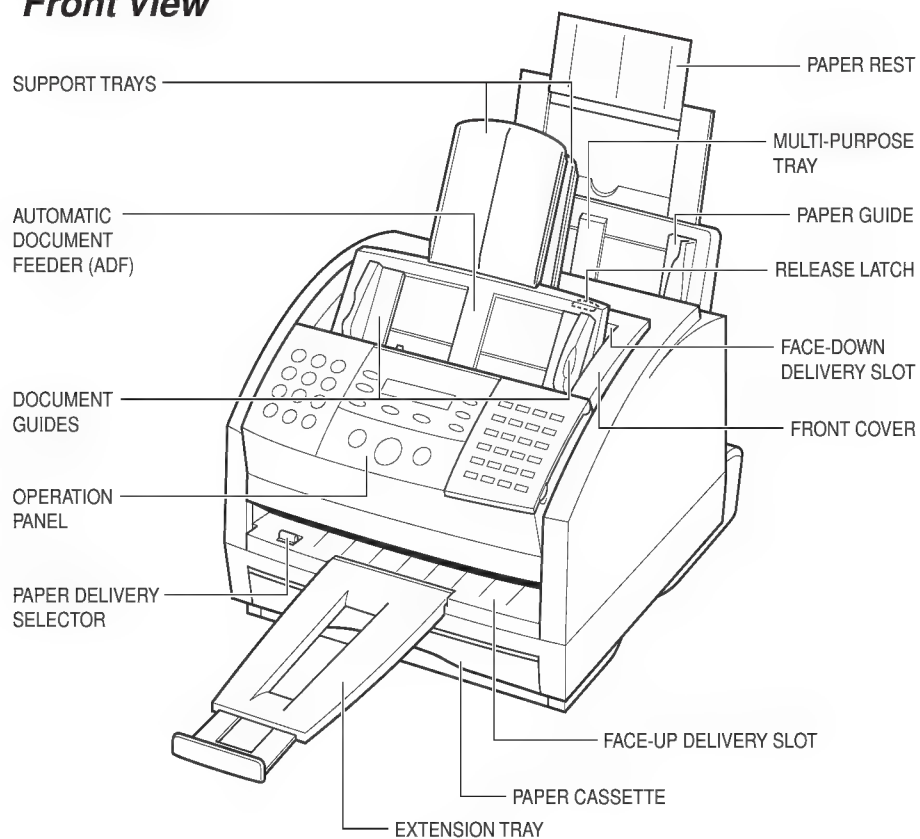
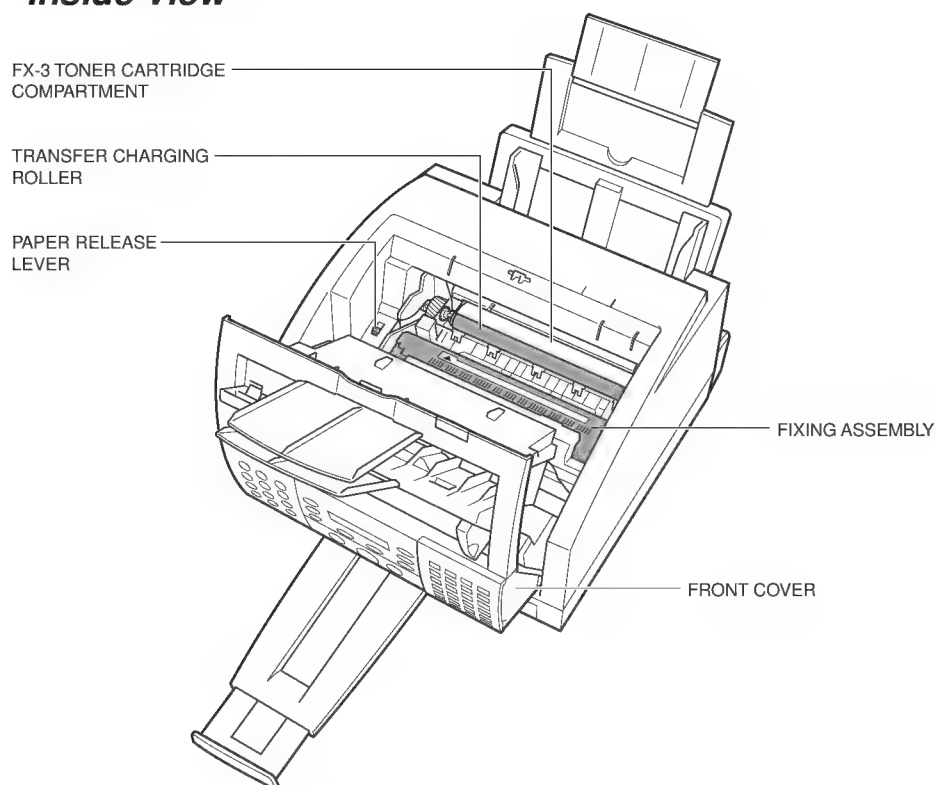


Figure 1-3 External View (1)

Inside View



Rear View

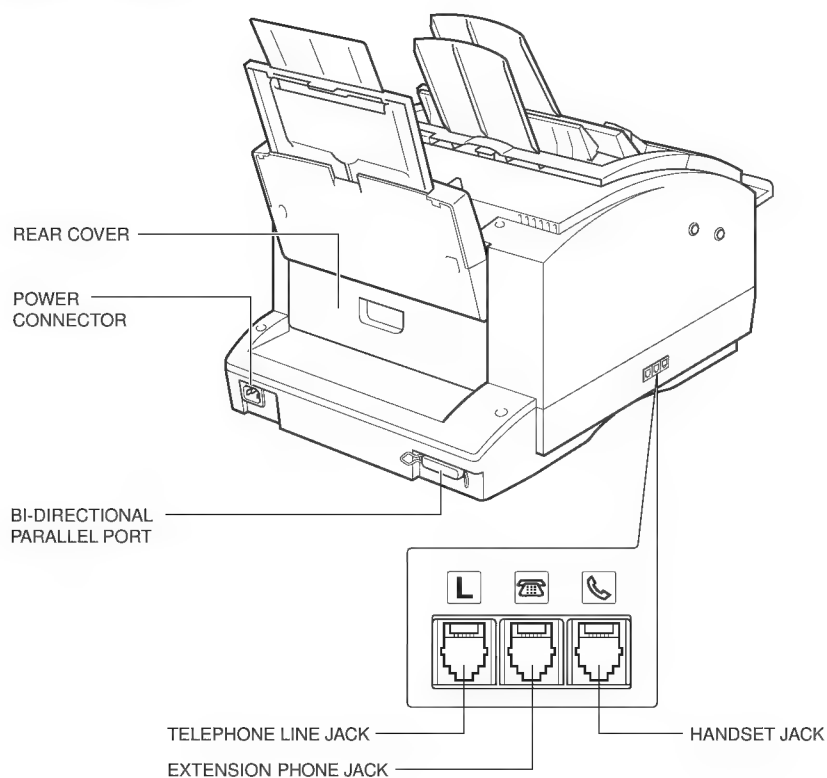
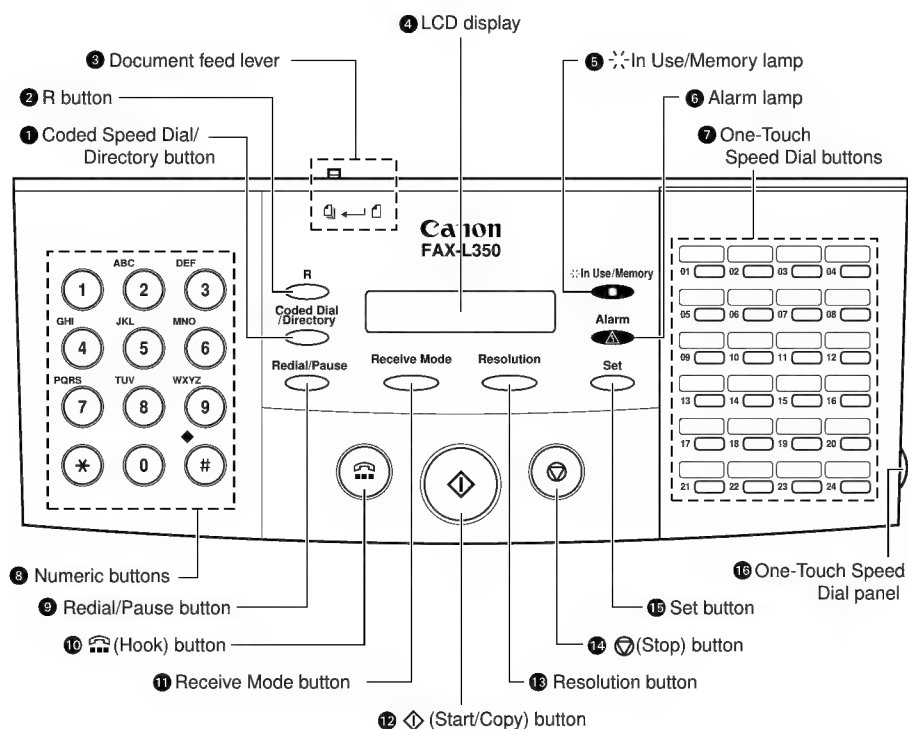


Figure 1-4 External View (2)

3.2 Operation Panel

The Operation Panel



1 Coded Dial/Directory button

Press this button to dial a fax/telephone number that you have registered for coded speed dialing, or to look up the other party's name and retrieve the number for dialing.

2 R button

Press this button to dial an outside line access number when the unit is connected through a switchboard (PBX).

3 Document feed lever

Set this lever to the left () for automatic document feed, or to the right () for manual document feed.

4 LCD display

The LCD display shows messages and prompts during operation, and displays selections, text, numbers and names when registering information.

Figure 1-5 Operation Panel (1)

- 5 ✧ In Use/Memory lamp**

Lights when the telephone line is being used or a document has been received in memory
- 6 Alarm lamp**

This lamp flashes when an error occurs, or when the FAX-L350 is out of paper or toner.
- 7 One-Touch Speed Dial buttons**

Use these buttons for One-Touch Speed dialing.
- 8 Numeric buttons**

Use these buttons to enter numbers and names when registering information, and to dial fax/telephone numbers that are not registered for automatic dialing.

Redial/Pause button

Press this button to redial the last number that was dialed using the numeric buttons, or to enter pauses between digits when dialing or registering fax numbers.
- 10 ☎ (Hook) button**

Press to dial with the numeric buttons when using manual sending.
- 11 Receive Mode button**

Use this button to select the receive mode for receiving faxes.
- 12 ⬇ (Start/Copy) button**

Press this button to begin faxing, or copying.
- 13 Resolution button**

Press this button to select the resolution the FAX-L350 will use for the document you want to fax, or copy.
- 14 ⓧ (Stop) button**

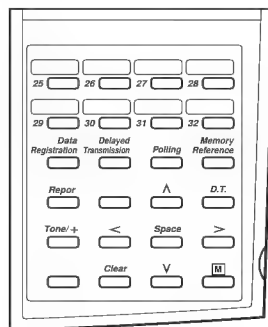
Press this button to cancel sending, receiving, or any other operation.
- 15 Set button**

Press this button to select a menu item when registering information.
- 16 One-Touch Speed Dial panel**

Open this panel to access the registration buttons.

Figure 1-6 Operation Panel (2)

Special Function Buttons (One-Touch Speed Dial panel open)



- ☐ **Data Registration button**
Use this button to register user's data, speed dialing, and other important settings for sending and receiving.
- ☐ **Delayed Transmission button**
Press this button to register a time for delayed sending.
- ☐ **Polling button**
Use this button to set a document for polling sending, and to poll the other fax to receive a document.
- ☐ **Memory Reference button**
Use this button to delete or resend documents stored in memory, or to print a list of documents in memory
- ☐ **Report button**
Use this button to print activity reports.
- ☐ **D.T. button**
Press this button to confirm the dial tone when dialing a number.
(Not used in the UK, Hong Kong, Australia, New Zealand, Singapore, or Malaysia.)
- ☐ **Tone/+ button**
Press this button to use tone dialing temporarily when your unit is set for pulse dialing. Press also to enter a + sign when registering your fax/telephone number.
- ☐ **Space button**
Use this button to enter a space between letters and numbers when you are registering information.
- ☐ **Clear button**
Use this button to clear an entire entry during information registration.
- ☐ **^ V Search buttons**
Use these buttons to scroll the display so you can see other options and selections in the menus during data registration.
- ☐ **< > Cursor buttons**
Use these buttons to move the cursor left or right during data registration.
- ☐ **M button (UK only)**
In the U.K., if you wish to use the UK Call, Global Call, and Day Call Services of Cable and Wireless Communication Ltd., use this button.

Figure 1-7 Operation Panel (3)

3.3 Option

Handset Kit

3.4 Consumable

Toner cartridge

FX3 cartridge is used.

4. DIMENSIONS

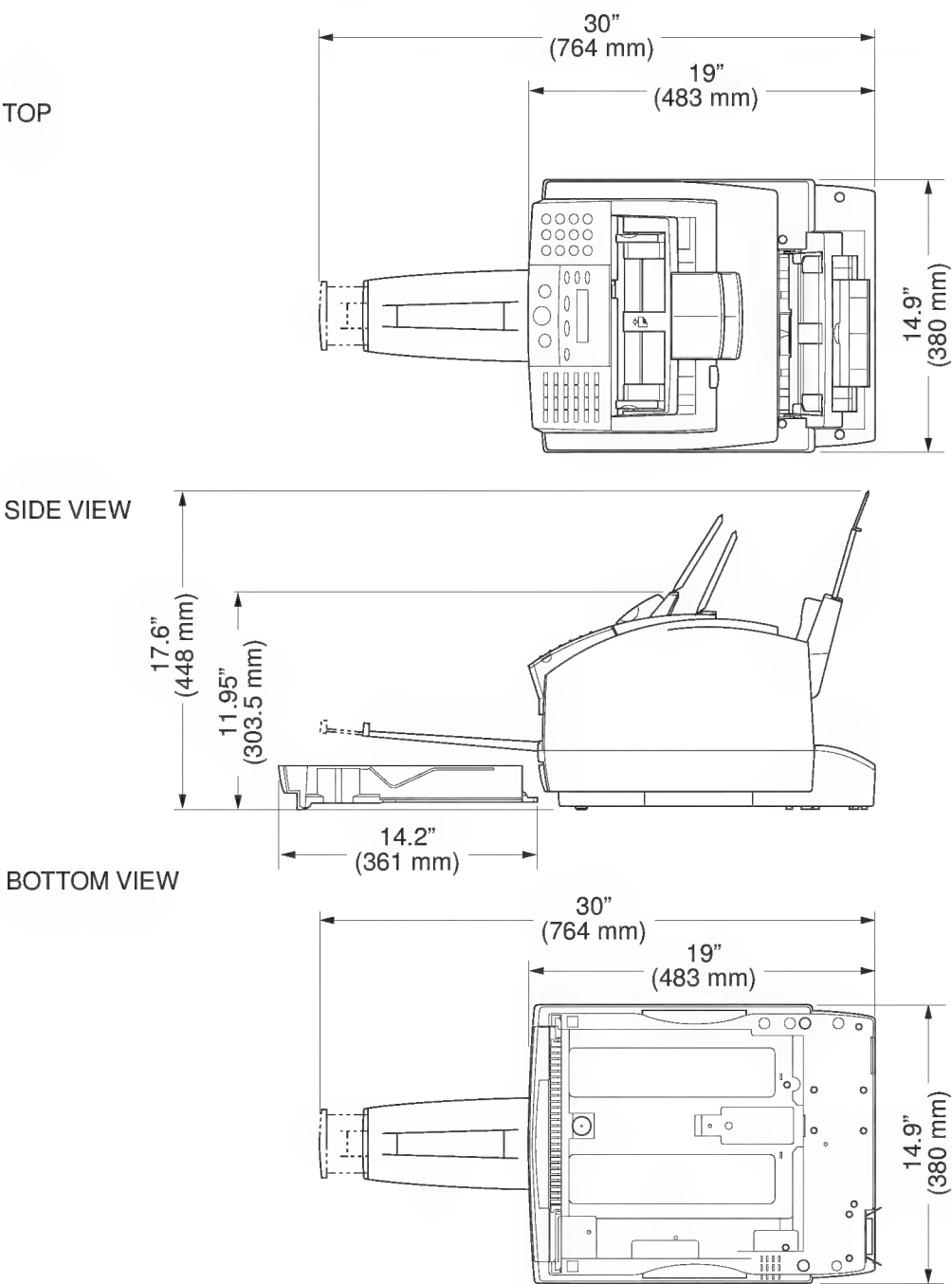


Figure 1-8 Dimensions

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5. SAFETY & PRECAUTIONS

5.1 Personnel Hazards

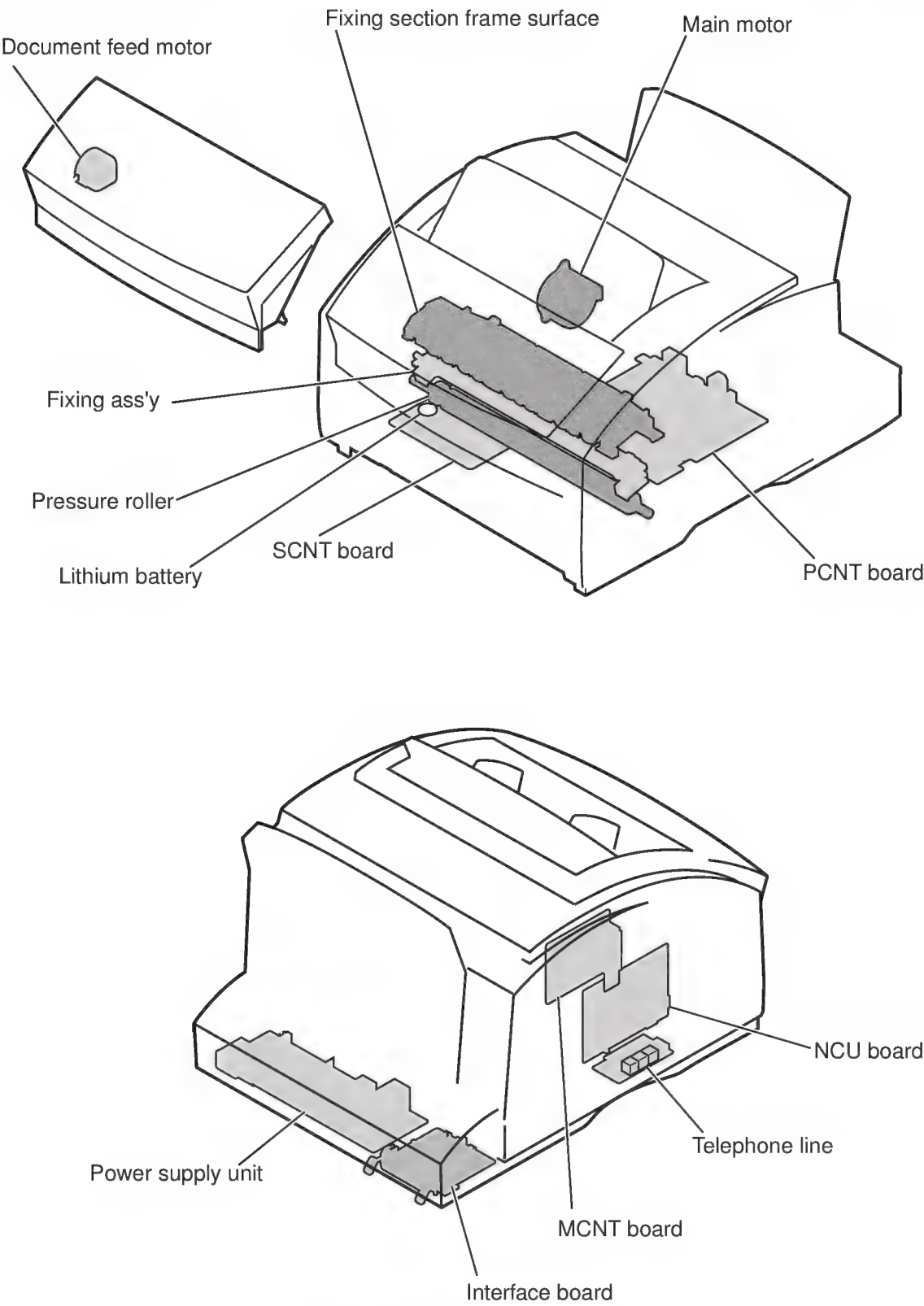


Figure 1-9 Personnel Hazards (1)

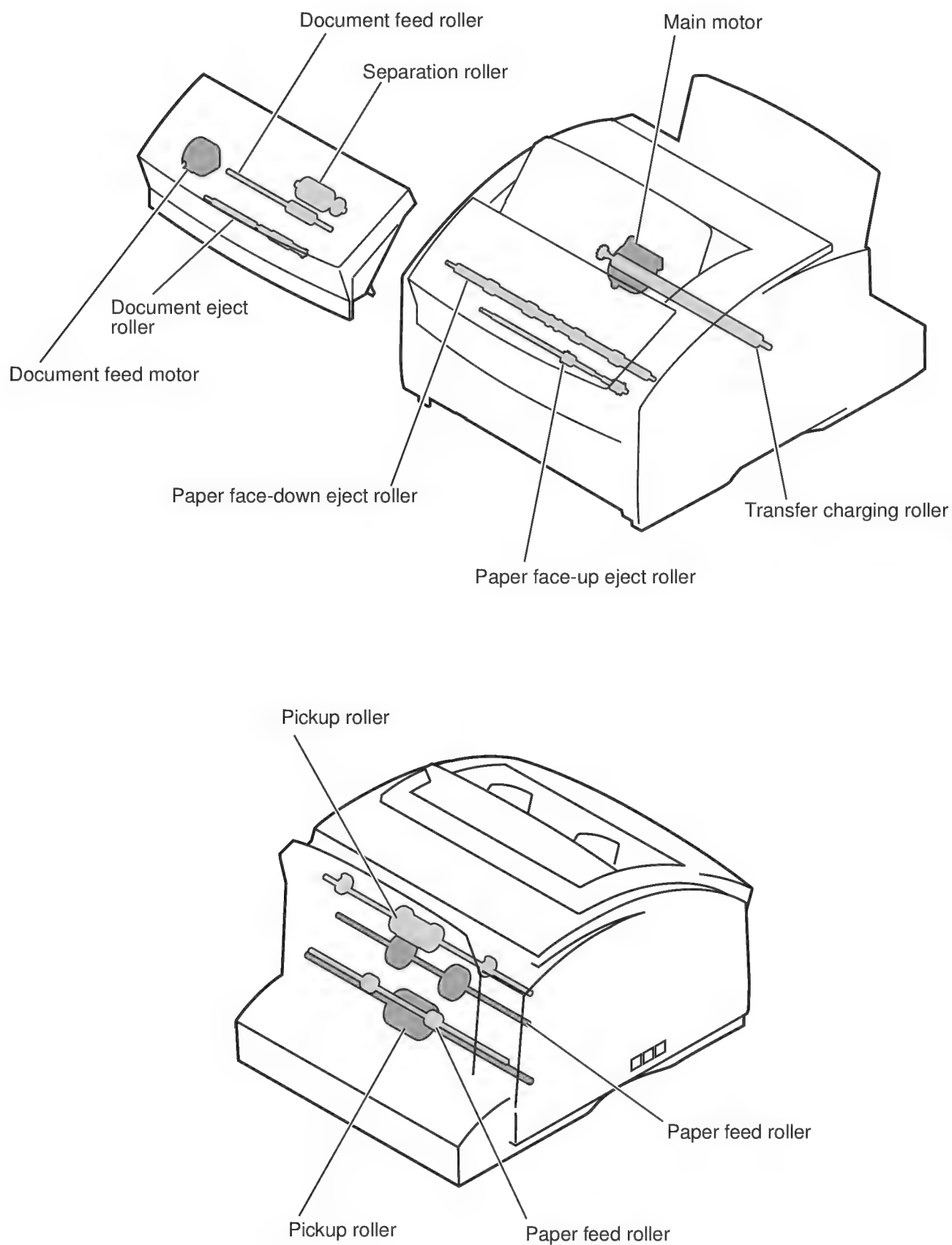


Figure 1-10 Personnel Hazards (2)

5.1.1 Electrical shock



Electrical shock hazard

- To prevent electrical shock, be sure to disconnect the power cord and modular jack before disassembly.
 - Remove grounding wrist straps before servicing this unit while the FAX's power is on. Otherwise, electrical shock may occur.
-



NOTE

Power supply unit

When power is supplied to this unit, 230 VAC will be supplied to the primary side.

Telephone line

If a telephone line is connected to this unit, 48 VDC will be supplied by this line. When a call signal is received, a voltage of 90 VAC Vrms will be supplied.

5.1.2 High-temperature parts



High-temperature warning

To prevent skin burns, disconnect the power cord and let this unit stand for at least 10 minutes to allow hot parts to cool.



NOTE

How to treat burns

Heat of about 122°F (50°C) or more causes burns. Also, the longer the contact, the more severe the burn.

When treating a burn, the first minute after receiving the burn is the most important. Cool the burn immediately with cold running water. In case of a serious burn, seek medical attention immediately.

High-temperature parts

The parts which get hot during operation are indicated. For the location of these parts, refer to the figures.

(Ambient temperature 95°F (35°C) continuous copy operation)

Document feed motor (approx. 168°F (76°C))

Main motor (approx. 145°F (63°C))

Fixing section frame surface (approx. 203°F (95°C))

Fixing ass'y and pressure roller (approx. 338°F (170°C))

Power supply unit (Max. ~ 187°F (86°C))

PCNT board assembly (Max. ~ 160°F (71°C))

5.1.3 Fire hazards



Do not dispose in fire.

Do not dispose of lithium batteries in fire. Doing so may rupture the battery and expose flammable materials.

Follow applicable local regulations when disposing of the SCNT board assembly's lithium battery.

Fire hazard

When using IPA or other solvents during servicing, heat or sparks from internal electronic circuits can ignite the solvent. Before using such solvents, be sure to turn off the power source and wait until the high-temperature parts cool. Use the solvent in a well-ventilated area.

5.1.4 Moving parts



Moving parts

To prevent mishaps due to moving or rotating parts during servicing, be sure to disconnect the power cord before disassembly.

5.1.5 LASER beams

This fax is a Class 1 Laser Product as defined in the EN60825 (IEC825) Radiation Safety of laser products, equipment classification, requirements and user's guide. This means that this product uses lasers that do not radiate dangerous laser beam and conforms to the regulations because the laser beam does not affect the user during operations.



Warning

If the LASER light gets in your eyes, it will damage the retina. Figure 1-11 is a LASER beam warning label which is placed on the LASER/scanner unit. Always remain within the contents of this manual when servicing, and do not carry out any other maintenance. Within the range of service work in this manual, you will not be exposed to dangerous LASER light.



Figure 1-11 LASER beam warning label



Disassembly Prohibited

Never disassemble or alter the printer section LASER/scanner unit. There is no servicing that requires you to disassemble the LASER/scanner unit.



NOTE

Safety Mechanism

There is a safety mechanism that electrically stops LASER emission and scanner mirror rotation when the front cover is opened and when the microswitch on the body frame has operated.

Also there is a safety mechanism that mechanically closes the shutter in the LASER/scanner unit to cut off the laser path, when the front cover is opened.

5.2 General Cautions

5.2.1 Unit cautions

Safety Instructions

Read these safety instructions thoroughly before using your FAX-L350, and keep them handy in case you need to refer to them later.



Caution

Except as specifically described in this user's guide, do not attempt to service the FAX-L350 yourself. Never attempt to disassemble the unit: opening and removing its interior covers will expose you to dangerous voltages and other risks. For all service, contact your local authorized Canon dealer or the Canon help line.

- ☐ Always follow all warnings and instructions marked on the FAX-L350.
- ☐ Use the FAX-L350 only on a sturdy, stable, level surface. If the unit falls, it could be seriously damaged.
- ☐ Do not use the FAX-L350 near water. If you spill liquid on or into the unit, unplug it immediately and call your local authorized Canon dealer or the Canon help line.
- ☐ The back of the FAX-L350 includes slots and openings for ventilation. To keep the FAX-L350 from overheating (which can cause it to operate abnormally and create a risk), take care not to block or cover these openings. Do not operate the unit on a bed, sofa, rug, or other similar soft surface, or near a radiator or other heat source. Do not place the FAX-L350 in a closet or cabinet or on shelves unless adequate ventilation is available. See "Choosing a Location for our FAX-L350" on page 1-25 for guidelines on how much space the unit needs for ventilation.
- ☐ Operate the FAX-L350 only from the type of power source indicated on the unit's label. If you are unsure of the type of power available from your wall outlets, contact your local power company.
- ☐ Make sure the total amperage used by all devices plugged into the wall outlet does not exceed the ampere rating of the outlet's circuit breaker.
- ☐ Do not allow anything to rest on the power cord or place the FAX-L350 where the cord will be walked on. Make sure the cord is not knotted or kinked.

Figure 1-12 Unit Cautions (1)

- ❑ Do not insert object of any kind into the slots or openings on the FAX-L350's cabinet, as they could touch dangerous voltage points or short out parts, and result in fire or electric shock.
- ❑ Do not allow small objects (such as pins, paper clips, or staples) to fall into the FAX-L350. If something does fall into it, unplug the unit immediately and call your local authorized Canon dealer or the Canon help line.
- ❑ Do not plug the power cord into an uninterruptible power supply (UPS).
- ❑ Always unplug the FAX-L350 before moving or cleaning it.
- ❑ Whenever you unplug the FAX-L350, wait at least five seconds before you plug it back in.
- ❑ Keep the FAX-L350 away from direct sunlight, as this can damage it. If you have to place it near a window, install heavy curtains or blinds.
- ❑ Do not expose the FAX-L350 to extreme temperature fluctuations. Install the unit in a place with temperatures between 50° and 90.5°F (10° and 32.5°C).
- ❑ Always unplug the FAX-L350 during thunderstorms.
- ❑ Before you transport the FAX-L350, remove the toner cartridge.
- ❑ Always lift the FAX-L350 as shown below. Never lift it by its multi-purpose tray or other supports.

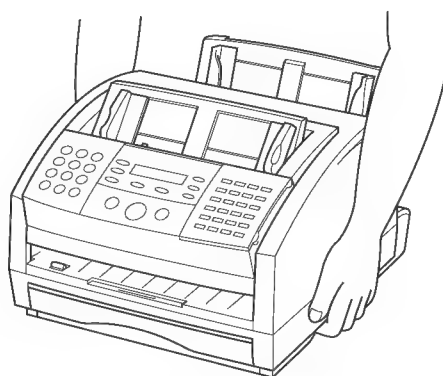


Figure 1-13 Unit Cautions (2)



Unplug the FAX-L350 and contact your local authorized Canon dealer or the Canon help line in any of these situations:

- ☐ If the power cord or plug is damaged or frayed.
- ☐ If liquid spills into the unit, or if it is otherwise exposed to rain or liquids.
- ☐ If you notice smoke or unusual noises or odour coming from it.
- ☐ If the FAX-L350 does not operate normally when you follow the operating instructions. Adjust only those controls that are covered by the operating instructions in this user's guide, or you can damage the unit and require extensive repair work.
- ☐ If the FAX-L350 is dropped or its cabinet damaged.
- ☐ If the FAX-L350 begins performing poorly.
- ☐ The optional handset emits low level electromagnetic waves. If you use a cardiac pacemaker and feel abnormalities, please move away from this product and consult your doctor.

Figure 1-14 Unit Cautions (3)

Choosing a Location for our FAX-L350

Before unpacking your FAX-L350, follow these guidelines to choose an appropriate location for the unit.



Please review the information provided in "Safety Instructions" on pages 1-22 to 1-24, to make sure you are installing your FAX-L350 for safe use.

- ☐ Put the FAX-L350 in a cool, dry, clean, well ventilated place:
 - Make sure the area is free from dust.
 - Make sure the location is not affected by extreme temperature fluctuations, and remains between 50° and 90.5°F (10° and 32.5°C).
 - Make sure the area's relative humidity is always between 20% and 80%.
- ☐ Keep the FAX-L350 away from direct sunlight.
- ☐ If possible, place the FAX-L350 near an existing telephone outlet, to allow for an easy connection of the telephone line to the unit.
- ☐ Place the FAX-L350 near an electrical wall outlet that provides 200 240 volt AC (50 60 Hz) power.
- ☐ Place the FAX-L350 near the PC you will be connecting it to. Make sure you can reach it easily, as you will be using the FAX-L350 as a printer, fax machine, copier, scanner, and telephone.
- ☐ Do not plug the FAX-L350 into the same circuit as an appliance such as an air conditioner, electric typewriter, television, or copier. Such devices generate electrical noise that can interfere with your unit's ability to send or receive faxes.
- ☐ Set the FAX-L350 on a stable, vibration-free surface that is strong enough to support its weight (about 28 lb/13 kg).

Figure 1-15 Unit Cautions (4)

Connecting the Power Cord



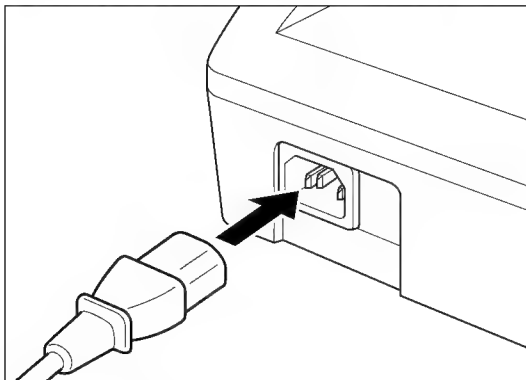
Follow these guidelines when connecting your FAX-L350 to a power source:

- ☐ The FAX-L350 is intended for domestic use only and requires 200–240V AC. Do not use it outside the country where it was purchased.
- ☐ Use only the power cord that came with the unit. Using a longer cord or extension cord can cause the FAX-L350 to malfunction.
- ☐ Unplug the unit only by pulling on the plug itself. Never pull on the cord.
- ☐ Do not plug the FAX-L350 into an outlet shared with an appliance such as an air conditioner, computer, electric typewriter, or copier. These devices generate electrical noise, which can interfere with the operation of the FAX-L350.
- ☐ Make sure nothing is laying on the power cord, and that the cord cannot be walked on or tripped over.
- ☐ Do not overload the electrical outlet. Make sure the total amperage used by all the machines plugged into the outlet does not exceed the ampere rating of the outlet's circuit breaker.
- ☐ Do not plug the unit into an uninterruptible power supply (UPS).

Figure 1-16 Unit Cautions (5)

Connect the power cord as follows:

1. Plug the supplied power cord into the power connector on the back of the FAX-L350.



2. Plug the other end of the power cord into the outlet.



Note

The FAX-L350 has no power switch, so its power is on as long as it is plugged in. Once connected, though, the unit still needs to warm up before you can use it.

- ❑ While the FAX-L350 is warming up, the message PLEASE WAIT appears in the LCD display:

PLEASE WAIT

- ❑ When the date and receive mode appear, the FAX-L350 is in standby mode and ready for use:

31/12/1999 FRI 10:00
FaxOnly STANDARD



Note

If the toner cartridge has not been installed yet, the message CHECK COVER/CART alternates with the standby mode display:

CHECK COVER/CART

31/12/1999 FRI 10:00
FaxOnly STANDARD

Figure 1-17 Unit Cautions (6)

Making Connections

Connecting the FAX-L350 to Your PC

Your FAX-L350 has an 8-bit, bi-directional parallel interface port that allows you to connect it to a PC. To do this, you need to purchase a Centronics-compatible parallel interface cable from your dealer.

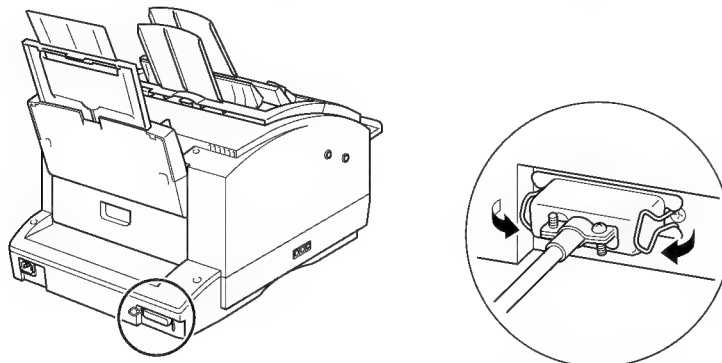


Note

For best results, use a cable that is no longer than 6.6 feet (2 meters). Canon recommends that you use a cable that complies with IEEE 1284. Contact your local authorized Canon dealer if you need help in selecting a cable.

Connect the FAX-L350 to your computer as follows:

1. Make sure the computer is turned off and the FAX-L350 is unplugged.
2. Connect the parallel interface cable to your FAX-L350:
 - a. Align the cable connector with the interface port so their shapes match.
 - b. Gently press the cable connector into the port.
 - c. Secure the cable connector by snapping both wire clips (on the sides of the port) into the cable connector, as shown below.



3. Connect the other end of the cable to the parallel interface port on your computer in the same manner.

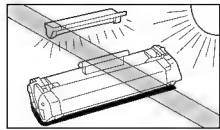
Figure 1-18 Unit Cautions (7)

5.2.2 Toner cartridge cautions

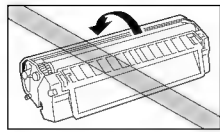
a) Handling the toner cartridge

The Toner Cartridge

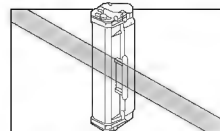
Handling and Storing Cartridges



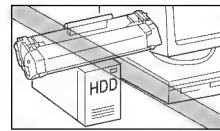
- ❑ Do not expose the cartridge to direct sunlight or bright light for longer than five minutes.



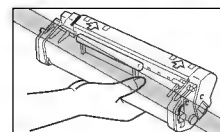
- ❑ Do not open the drum protective shutter on the cartridge. If the drum surface is exposed to light and damaged, print quality may deteriorate.



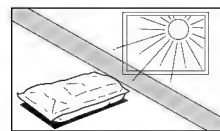
- ❑ Do not stand the cartridge on end, and do not turn it upside down. If toner becomes caked in the cartridge, it may prove impossible to free it even by shaking the cartridge.



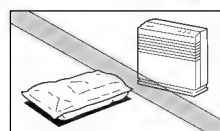
- ❑ Keep the cartridge away from computer screens, disk drives, and floppy disks. The magnet inside the cartridge may harm these items.



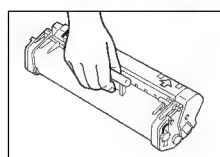
- ❑ Never touch the drum protective shutter. When holding the cartridge avoid touching the drum protective shutter with your hands.



- ❑ Do not store the cartridge in direct sunlight.



- ❑ Avoid locations subject to high temperature, high humidity, or rapid changes in temperature. Store the cartridge between 32° and 95° F (0° and 35° C).



- ❑ Hold the cartridge as shown so that your hand is not touching the drum's protective shutter.

Figure 1-19 Precautions for Handling Cartridge (1)

b) Usage period of toner cartridge

The usage period for the toner cartridge is stamped on the label of its individual package. This period lasts for 2.5 years from the date of manufacture. Using a cartridge after this period may reduce print quality.

- ❑ Store the cartridge in its protective bag. Do not open the bag until you are ready to install the cartridge in the unit.
- ❑ Save the protective bag. You may need to repack and transport the cartridge at a later date.
- ❑ Do not store the cartridge in salty air or where there are corrosive gases such as from aerosol sprays.
- ❑ Do not remove the cartridge from the FAX-L350 unless necessary.



DO NOT PLACE THE CARTRIDGE IN FIRE. TONER POWDER IS FLAMMABLE.

Figure 1-20 Precautions for Handling Cartridge (2)

5.3 Servicing Cautions

5.3.1 Damage from static charge

This unit contains contact sensor and printed circuit boards equipped with ROM, RAM, custom chips, etc. These electronic components are susceptible to damage caused by static charge.

When disassembling this unit, take care to prevent static charge.



Static electricity

Electrostatic discharge damages electronic components and alters their electrical characteristics. Even plastic tools and hands without grounding wrist straps will generate enough static electricity to damage electronic components.

The following equipment is needed to prevent electrostatic discharge damage:

- A earthed conductive mat
- Grounding wrist straps
- A cord with alligator clips to ground this unit's metal chassis

If you do not have any of the above on hand (during on-site servicing), follow the alternate measures below:

- Use a grounding bag to store and transport printed circuit boards and electronic devices.
- Avoid wearing silk or polyester clothing and leather-soled shoes. Wear cotton clothing and rubber-soled shoes instead.
- Avoid servicing this unit in a carpeted room.
- Before servicing this unit, touch this unit's grounded terminals to discharge any static charge.
- Wear grounding wrist straps and ground this unit's metal chassis.
- Always handle the circuit boards and devices along their edges. Do not touch the components and terminals with your fingers.



Electric shock when carrying out work with the fax turned on

When you must service the fax with the power cord plugged in, you must not ground your body with grounding wrist straps. This is to prevent electricity passing to your body and causing electric shock.

5.3.2 Scanner section

a) Contact sensor

- Handle contact sensors with care to prevent scratching or smudging of the scanning surface. Scratches or smudges can cause vertical stripes, etc., to appear on the scanned image.

b) ADF rollers

- Be careful not to scratch the ADF rollers. If the rollers are scratched, paper jams may result.

c) Lubrication points

- Document feed roller.

5.3.3 Printer section

a) Transfer charging roller

If skin, oil or, the like, gets on the sponge of the transfer charging roller, the rear side of the recording paper can be soiled, and blank patches can occur in printing.
During disassembly, hold the transfer charging roller by the shaft and gears at both ends.



REFERENCE

Cleaning method

If a printing defects occur, clean the transfer charging roller, as explained in *Chapter 3: Maintenance & Service*.

b) Fixing ass'y

If you get skin, oil, or the like, on the internal fixing film or pressure roller surface, the front or rear of the recording paper may be soiled, and fixing defects, and jams can occur.
During disassembly, hold the fixing ass'y by the plastic sections. Hold the pressure roller by the shaft, at both ends of the rollers.



REFERENCE

Cleaning method

If the fixing film or pressure roller is soiled, clean the transfer charging roller, as explained in *Chapter 3: Maintenance & Service*.

c) Lubrication points

Do not touch the greased parts of the outer periphery of the gear shaft and the gear teeth at the left side of the main frame. If you do, the grease (applied for smooth operation of the printer mechanism) will come off.



Use only specified grease.
If you use other grease, the grease may oxidize, and weaken plastic parts.



REFERENCE

If you accidentally touch a greased part and grease comes off, reapply the grease, *see the PARTS CATALOG (supplied separately)*.

d) LASER/Scanner unit

The LASER/scanner unit cannot be adjusted in the field so do not attempt to disassemble it. Never loosen or remove the screws on the LASER/scanner unit. Doing so might prevent satisfactory printing.

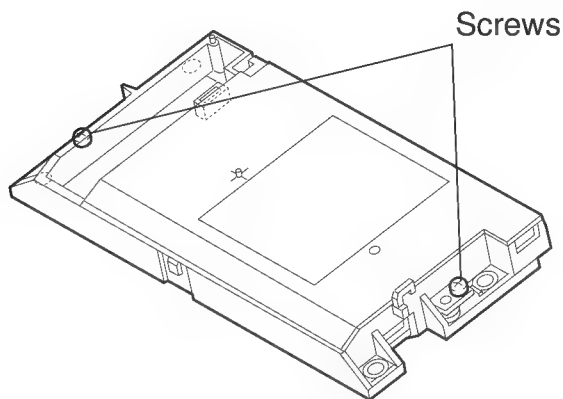


Figure 1-21 Precaution for Handling LASER/scanner Unit

5.3.4 Paper feed section**a) Pick-up roller**

If, skin, oil or, the like, gets on the pick-up roller surface, misfeeding, jam, or multi-feeding can occur. During disassembly, hold the pick-up roller by the plastic sections.

**Cleaning method**

If the printing defects occur, clean the pick-up roller, as explained in *Chapter 3: Maintenance & Service*.

5.3.5 Paper load section

b) Lifting arm position

If cassette is removed with the lifting arm raised to clear jam, the cassette cannot be inserted again. If the recording paper cassette is inserted forcibly, the arm may be damaged. To initialize the lifting arm position (move the arm down), turn the power off and on again or

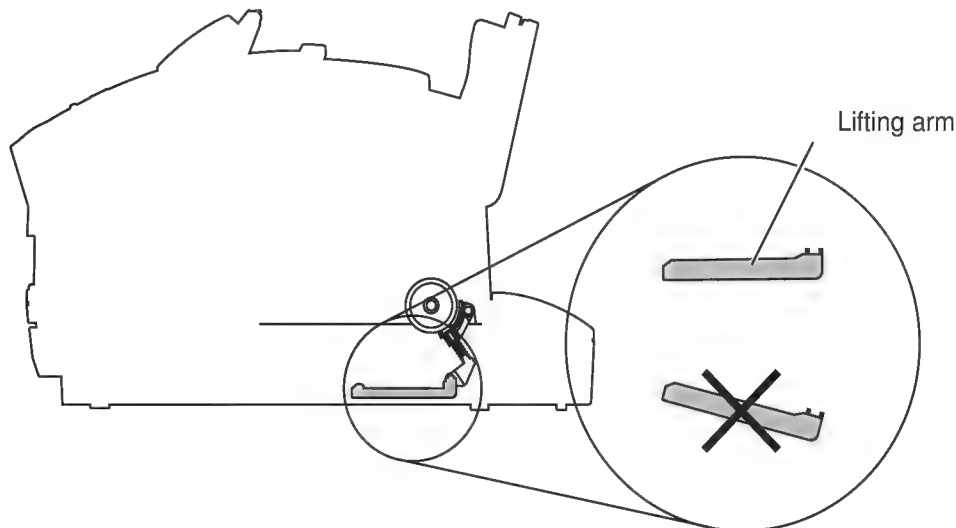


Figure 1-22 Lifting arm position

5.3.6 Control boards

a) SCNT board

- The SCNT board stores the user data, service data, and other data. Therefore, when replacing the SCNT board, print out the stored data and then enter this data into the new SCNT board.



The SCNT board replacement precaution is described in *"5.4.3 SCNT board replacement precautions"* on Page 1-39.

REFERENCE

- The SCNT board's volume resistor VR1 has been factory-adjusted. Service personnel are not to alter its setting.

b) Power supply unit

- Current fuses FU101 on the power supply unit are directly attached. If these fuses must be replaced, we recommend replacing them together with the power supply unit.
- The power supply unit's adjustable volume VR201, VR202 has been factory-adjusted. Service personnel are not to alter its setting.



Do not plug the unit into an uninterruptible power supply (UPS).
Doing so may result in damage to the fixing ass'y.

5.3.7 Replacing ROM

Observe the following precautions when replacing the ROM on the SCNT board, for example, when replacing a defective ROM.

a) Preparation

Print out all battery backed up data.



Reception image data in image memory is erased approx. one hour after power is turned off.

b) Replacement

- (1) Make sure that the power cord is disconnected.
- (2) Put on the grounding wrist straps to counter electrostatic discharge.
- (3) Open the operation cover, remove the 1 screw on the inner cover, and remove the ROM cover referring to the *"Parts catalog"* (supplied separately).
- (4) Remove the ROM mounted on the SCNT board using the ROM extractor etc.
- (5) Insert the new ROM, making sure that the notches on the ROM package and IC socket are aligned.

c) After replacement

- (1) When a defective ROM is being replaced with a new ROM, turn the power on after mounting on the SCNT board. This completes replacement.
- (2) When the ROM is replaced for upgrading the software and upgrading involves changing software switch settings such as service data, you must perform the following operation.
 - Perform All Clear operation. After you perform All clear operation, register the backed up data referring the list you printed out earlier.

5.4 Data-related precautions

The memory IC on the circuit board stores the user's registration data and values for various counters, etc., required for servicing. Although this data is normally retained in memory, it can be deleted by mistake. When handling this data during servicing, note the following precautions.

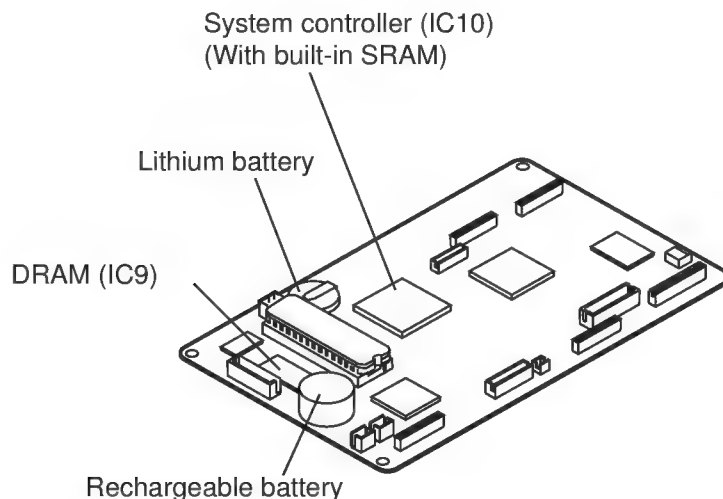


Figure 1-23 Backed up Devices

5.4.1 Data in the image storage memory (DRAM)

DRAM stores image data which was read other than by a direct transmission. It also acts as a buffer memory to store the image data received. Transmitted and reception image data stored in the DRAM, on the SCNT board, are backed up for approx. one hour by electric double layer capacitor.



NOTE

Reception image data

When image data are set to be printed, they will be stored in the DRAM as memory reception images, and “**RECEIVED IN MEMORY**” will be displayed. If printing is disabled due to a fault in the printing section, transfer the stored reception image data to another fax machine.

**NOTE****Reception image data transfer**

When reception images cannot be output due to printer failure, etc., the image data can be transferred to another fax machine by using the reception image data transfer function.

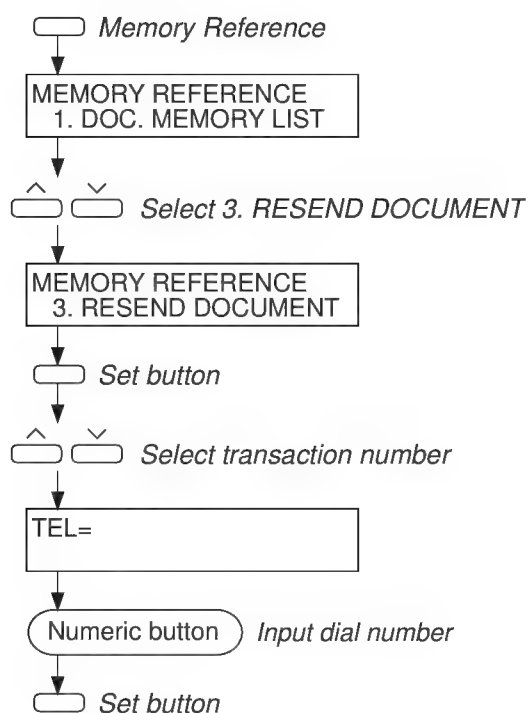


Figure 1-24 Reception Image Data Transfer

5.4.2 Data in the control processing memory (SRAM)

SRAM is backed up by a lithium battery. It can retain the stored data for 5 years after the power is turned off. SRAM stores the following data: All the data the user entered with the user data setting, the activity reports and other report-generating data, the redial data containing the redial destinations set with the Redial button, the servicing data set by repair personnel with the service soft switch. SRAM stores almost all of the data which can be entered or set.

These stored data can be checked with various reports.



NOTE

Jumper plug precautions

The control/image processing memory is backed up by shorting the jumper pin (JP1) on the SCNT board with the jumper plug. If the jumper plug is removed and the power is turned off, the data in SRAM will be lost.

Before removing the jumper plug, be sure to print out the data stored in the SRAM.

Lithium battery life

The lithium battery can last for over 5 years after the power is turned off.

When the power is on, the lithium battery's power is untapped. Therefore, the actual battery life can be much longer.

When the lithium battery becomes exhausted, "**DATA ERROR**" will be displayed after the power is turned off or on. When this happens, replace the lithium battery. Since the data in SRAM will be lost when the battery is replaced, it cannot be printed out.

After the lithium battery is replaced and the power is turned on, "**DATA ERROR**" will be displayed. Press the *Set* button to discard the contents in SRAM and initialize it to the factory defaults.

5.4.3 SCNT board replacement precautions

Before replacing the SCNT board, print out all of the stored data.

The list which output the data that must be entered into the new SCNT board is listed below.

User list

- One-touch speed dialing list
- Coded speed dialing list
- Group dialing list
- User data list
- Activity report

Service list

- System data list
- System dump list



REFERENCE

To printout these list, *see Chapter 3: 7. SERVICE REPORT on Page 3-65.*



The service part SCNT board uses a jumper pin to close the lithium battery's circuit. To prevent battery depletion during shipping, only one prong of the jumper pin is covered with a jumper plug.

When replacing the SCNT board, re-attach the jumper plug so that it covers both prongs of the jumper pin and closes the circuit; the lithium battery can then be used for SRAM back-up.

If this procedure is omitted, there will be no battery back-up for the SRAM data.

After the new SCNT board is installed and the power is turned on, "**DATA ERROR**" will be displayed. Press the *Set* button to discard the SRAM's irregular contents and initialize it to the factory defaults.

Then refer to the list that was printed out beforehand and enter the various data.

5.4.4 Data initialization through service operation

All the data can be initialized with the service data #8 clear operation.



For details on the initialization procedure and the data that is erased, *see Chapter 3: 5.2 Service Data Settings on Page 3-28.*



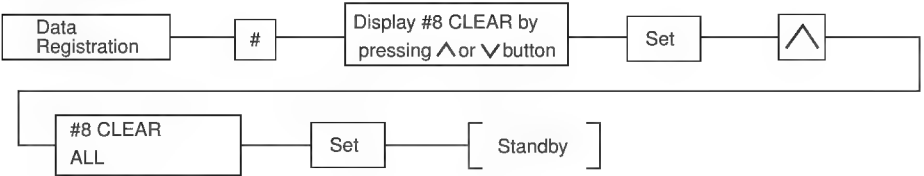
"All clear" when nothing works.

On a rare occasion, the display may go blank and all the buttons may stop working. Severe electrical noise and static can cause problems as well. In such a case, use the "All clear" feature.

After installing the unit for the first time and connecting the power cord, execute "All clear".

Also, after an "All clear", we recommend that you set the country type to suit the communication standard used in your country. Below is the procedure for performing All clear and type setting operation.

ALL CLEAR



TYPE SETTING

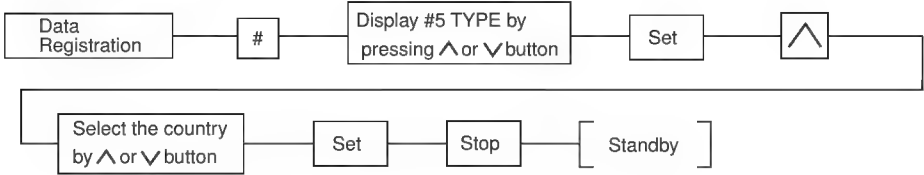


Figure 1-25 All Clear and Type Setting

5.5 Protective Mechanism

5.5.1 Data battery backup function

If there is a power outage or if the power is turned off, the data stored in the control memory is retained since the lithium battery function as a data battery backup.



REFERENCE

For details on the backed up data, *see Chapter 1: 5.4 Data-related precautions on Page 1-36.*

5.5.2 Overcurrent protection

This machine is provided with an overcurrent with built-in fuse, to prevent abnormal rises in temperature if an overcurrent flows to the motors and power supply due to driver IC trouble, software lockup and short circuit.

Protected Parts	Safety Measures
Document feed motor	IC protector (FU501) on SCNT board
Main motor	IC protector (FU501) on SCNT board
Power supply unit	Glass-tube current fuse (FU101:250V, 3.15A) overcurrent protection circuit thermistor (TH101)
Fixing ass'y	Thermal fuse, thermistor

5.5.3 Lightning protection

The fax unit's electrical components are protected from abnormal voltage caused by lightning.

Protected Component	Safety Device
NCU board ass'y	Arrester (AR1, AR2) located at the primary side of the NCU board discharge a voltage of more than 500VDC via the power cord.
Power supply unit	Varistor (VZ101, VZ102*) and arrester (AR101)* located at the primary side of the power supply unit discharge a voltage of more than * For VZ102 and AR101, only the AE version exits.



NOTE

When protection is not possible

The NCU board sometimes may not be protected even by the protection circuits if lightning strikes the telephone line.

5.5.4 Power leakage protection

The AC line, telephone line, and metal parts of the fax unit are completely insulated. The fax unit has a grounded power cord to prevent electrical shock. If power leakage does occur, use the fax unit only with a grounded electrical outlet supplying the proper voltage.

6. QUALIFICATION REQUIRED FOR INSTALLATION WORK

The qualifications for installation must satisfy local laws and regulations.

Chapter 2

Technical Reference

1. DRIVE/ELECTRICAL SYSTEM LAYOUT

This machine is divided into three mechanisms: scanner section, paper supply section and printer section.

In the scanner section, the document feed motor drives the document feed rollers and separation rollers to feed the document from the document feed tray to the document eject slot at the front of the machine. The document is scanned by the contact sensor located along the document feed path.

In the paper supply section, the main motor in the printer section is used to drive the paper pickup roller, which separates one sheet at a time from multiple sheets set in the cassette at the bottom of the machine or set on the recording paper rest at the rear of the machine, and feeds the recording paper to the printer section.

In the printer section, the main motor drives the gears and rollers to print the image scanned from the document onto the recording paper fed from the papers supply section, which is then ejected. The user can choose to eject the printed paper either face up or face down.

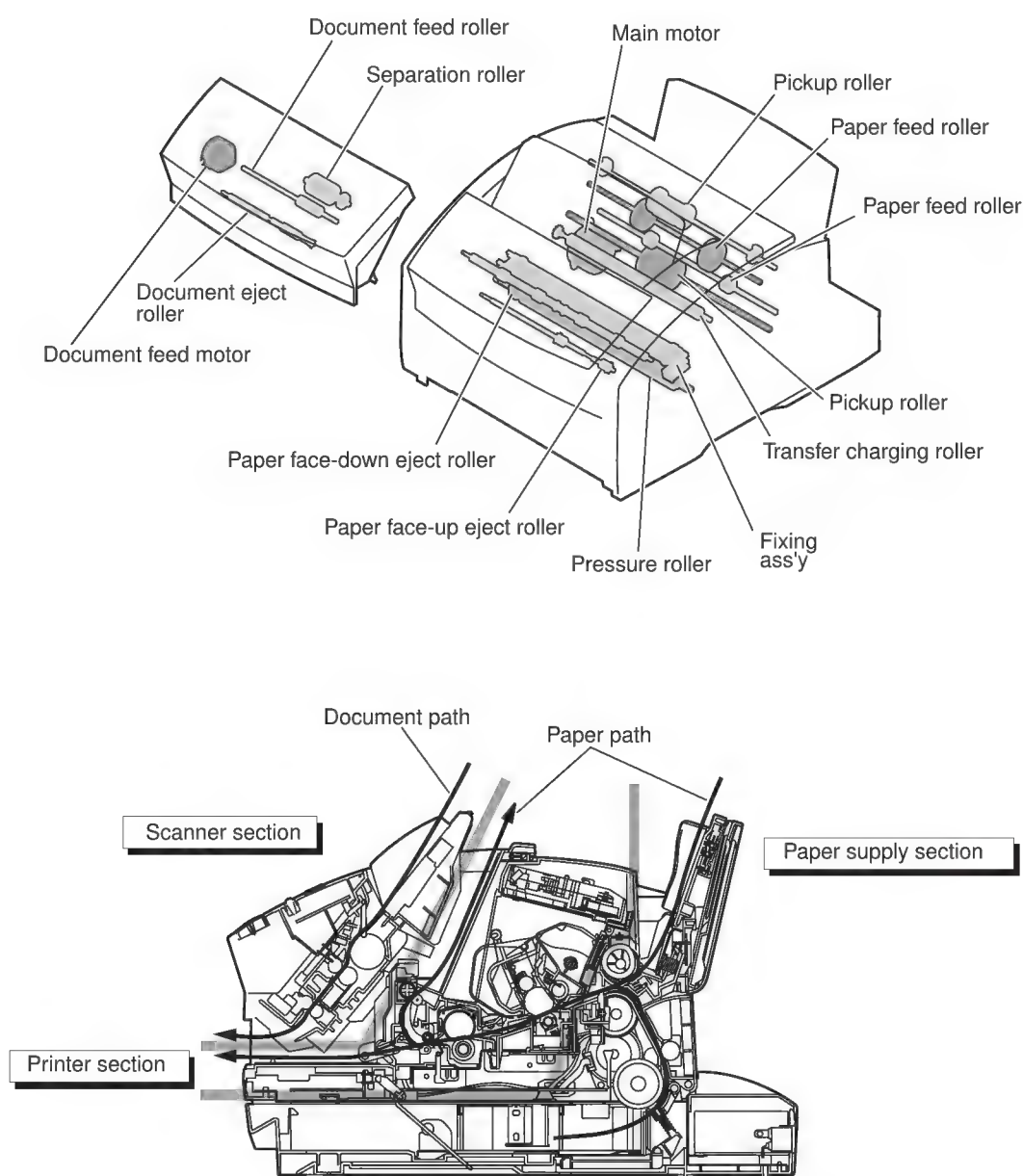


Figure 2-1 Drive System Layout

The following eight printed circuit boards are located in this machine:

- SCNT board that controls the entire system
- NCU board that interfaces with the telephone line
- MODULAR board that connects the telephone line and the NCU board
- PCNT board that generates high voltage for the printer
- OPCNT board that controls the operation panel's buttons and LCD.
- A power supply unit is also located in this machine.
- MCNT board that controls the main motor.
- INTERFACE board that interfaces with the PC.

The nine sensors shown below detect the status of the machine.

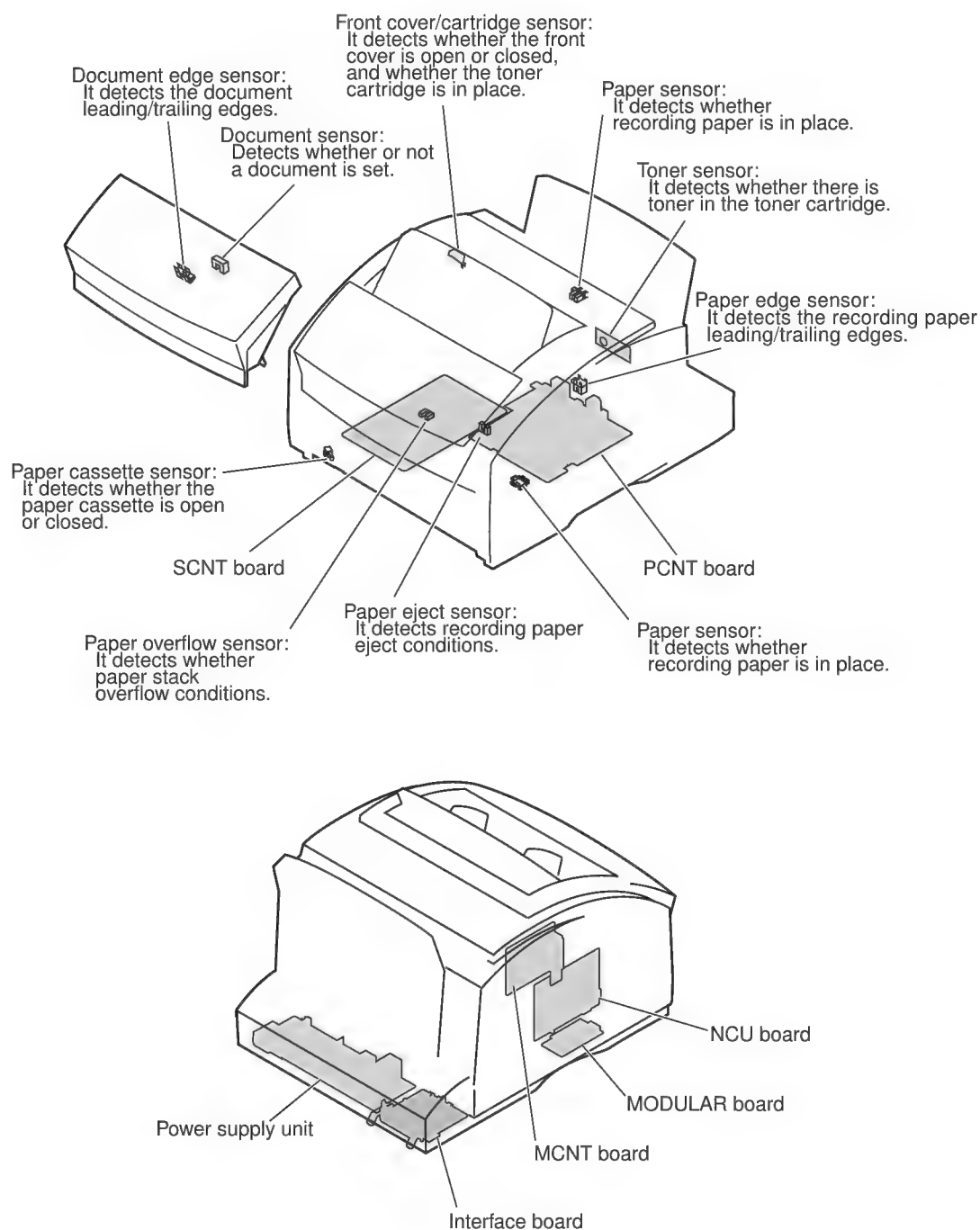


Figure 2-2 Electrical System Layout

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2. SCANNER MECHANISM

The scanner section scans documents that are to be sent or copied.

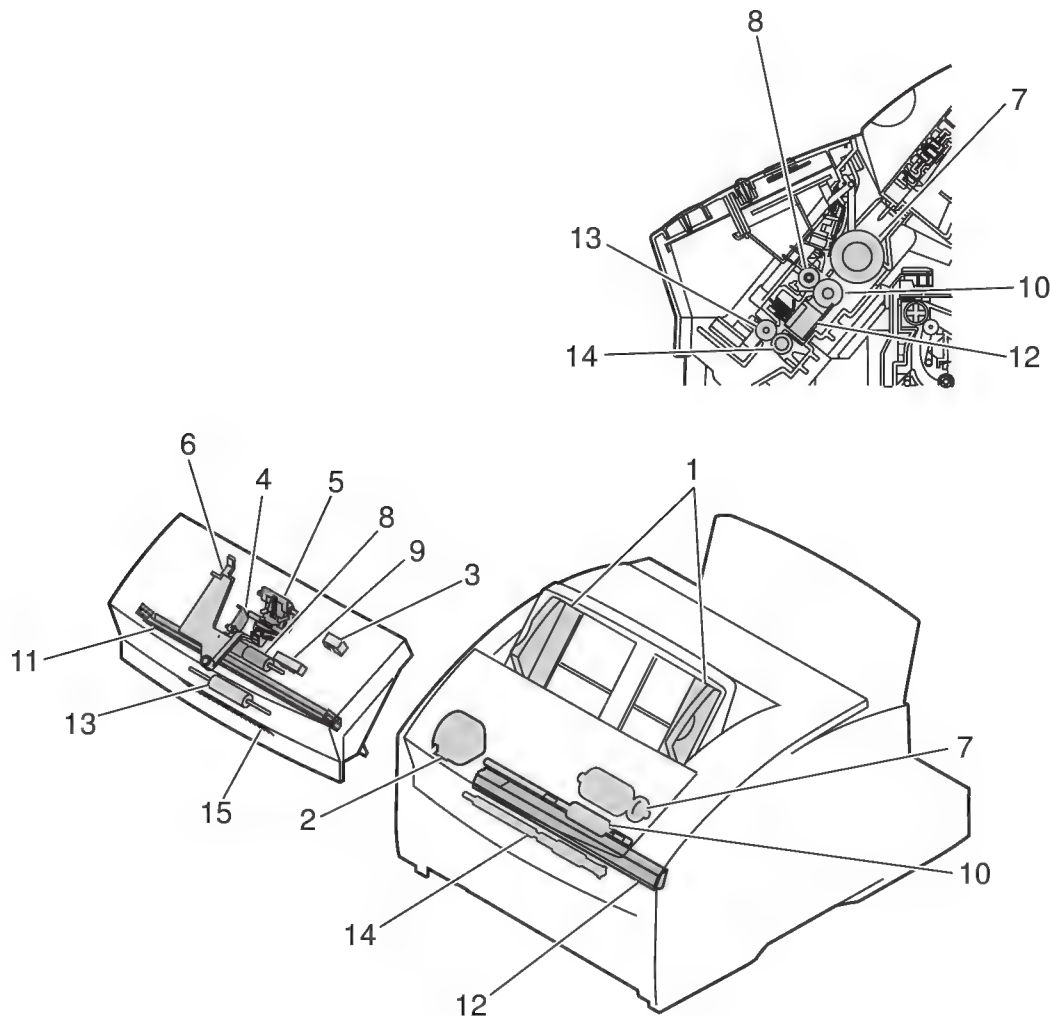


Figure 2-3 Scanner Section

Names and functions of parts:

1. Paper Guide

When properly adjusted to the width of the documents, the guide will hold the documents in the horizontal direction to prevent them from skewing when fed.

2. Document Feed Motor

This motor drives all the rollers in the scanner section.

3. Document Sensor (DS)

This sensor uses an actuator to detect the presence of documents to be scanned, and sends that information to the SCNT board by way of the gate array in the operation panel unit.

4. Document Stopper

This stopper is located to the side of the separation rollers, and prevents documents from entering too far inside the scanning section. This stopper is located here to improve document loading and prevent double feeding or non-feeding due to defective loading of documents.

5. Separation Guide

Separates the documents to prevent double-feeding.

6. Document Feed Lever

This lever switches between automatic document feed and manual document feed. Damage to the document caused by the separation roller can be minimized by switching to the manual document feed position when sending single sheets such as thick-stock paper or photographs.

7. Separation Roller

This roller uses differences in the coefficients of friction of the separation guide, document and separation roller to separate each of the sheets in a multiple-page document.

8. Upper Document Feed Roller

When the separation roller starts to rotate, the upper document feed roller raises the document stopper so that documents can be fed.

9. Document Edge Sensor (DES)

Using an actuator, the DES detects the edge of a document just before it reaches the contact sensor, and sends this information to the SCNT board.

10. Document Feed Roller

This roller feeds documents to the contact sensor after they are separated by the separation roller.

11. White Sheet

This white sheet is used as a whiteness reference when pre-scanning documents.

12. Contact Sensor

Scans the image information from the document, converts it to serial data, and transmits it to the SCNT board as an electrical signal. The contact sensor has a scanning resolution of 300 dpi.

13. Upper Document Eject Roller

Holds the document between the document eject rollers, and then ejects it.

14. Document Eject Roller

This roller ejects documents fed from the document feed roller.

15. Static Eliminator Brush

Removes static electricity which may have built up on the document in the scanning process, and guards against roller jams.



Initializing the upper document feed roller

When the separation roller starts to rotate, the position of the upper document feed roller is simultaneously initialized to raise the document stopper. Initialization is carried out when the power is turned ON, when documents are inserted and when documents are ejected.

Document feed lever

Switching between automatic document feed and manual document feed is carried out by the document feed lever above the left side of the LCD. During automatic document feed, documents are gripped between the separation guide and the separation roller. Switching the lever to manual document feed raises the separation guide and frees it from the document. Manual document feed can therefore minimize the possibility of damage caused by pinching between the separation guide and separation roller when feeding documents such as thick-stock paper or photographs. However, because document separation does not occur in manual document feed mode, only one sheet at a time may be loaded. Loading multiple sheets will result in double feed.

Document Jam Detection

There are two types of document jams which may occur:

a) Feed jam

Occurs when the document edge sensor cannot detect the document's leading edge within 15 seconds after the start of document separation.

b) Eject jam/document too long

Occurs when the document edge sensor cannot detect the document's trailing edge within one meter of feeding after the document's leading edge is detected.

When one of these types of jams occurs, all data which have been read and stored in memory (except pages that have already been completely transmitted or copied) are erased.

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3. PAPER SUPPLY SECTION

The paper supply section separates the sheets of recording paper loaded in the sheet feeder and feeds them to the printer section one sheet at a time.

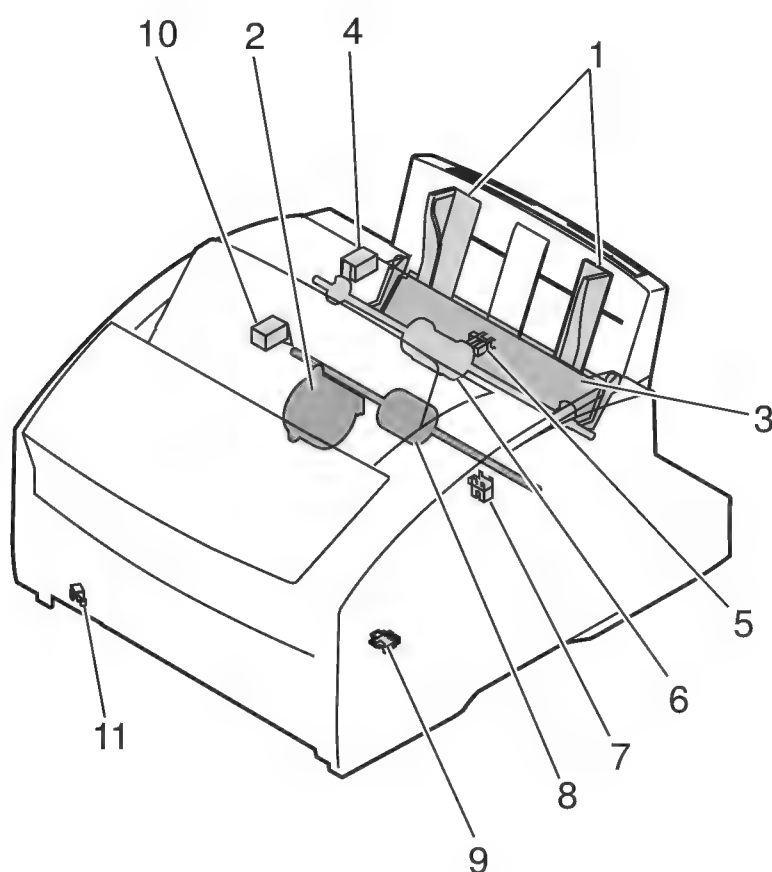


Figure 2-4 Paper Supply Section

Names and functions of parts:**1. Paper Guide (MULTI-PURPOSE TRAY)**

This guide can be adjusted to the width of the loadable recording paper sizes. It prevents the recording paper from skewing during recording by accurately aligning the paper width.

2. Main Motor

This motor drives all the rollers in the paper supply section.

3. Lifting Plate

The lifting plate that was held down by the pickup roller is lifted up during paper feeding, and the recording paper loaded on the lifting plate contacts the pickup roller to be separated.

4. Pickup Solenoid

This solenoid controls rotation of the pickup roller. When the main motor is activated to begin paper feeding, the pickup solenoid releases the pickup roller. When the pickup roller picks up a sheet of recording paper and rotates one full turn, the solenoid locks the pickup roller again.

5. Paper Sensor (PS)

This sensor uses an actuator to detect the presence of recording paper in the sheet feeder.

6. Pickup Roller

The pickup roller is rotated once, and operating together with the lifting plate, feeds the paper one sheet at a time.

7. Paper Edge Sensor (PES)

This sensor uses an actuator to detect the leading edge of recording paper and sends detection information to the SCNT board. It is located under the pickup roller.

8. Pickup Roller

The pickup roller is rotated once, and operating together with the lifting plate, feeds the paper one sheet at a time.

9. Paper Sensor

The sensor detects the presence/absence of recording paper inside the cassette.

10. Pickup solenoid

This solenoid controls rotation of the pickup roller. When the main motor is activated to begin paper feeding, the pickup solenoid releases the pickup roller. When the pickup roller picks up a sheet of recording paper and rotates one full turn, the solenoid locks the pickup roller again.

11. Paper cassette sensor

The sensor detects the presence/absence of the paper cassette.

**NOTE****Paper Feed Jam Detection Retry Function**

Because the recording paper on this machine is loaded upright, the paper is sometimes difficult to feed when there is little recording paper left or the recording paper curls. For this reason even if the paper edge sensor does not detect the leading edge of the recording paper within a specific time* after the pickup solenoid releases the pickup roller the machine tries to repeat the same operation before judging that a jam has occurred. If the paper edge sensor still cannot detect the leading edge of the recording paper, a paper feed delay jam is detected.

* Within 3.5 sec. in the case of the Multi-purpose tray.

Within 8 sec. in the case of the cassette.

Initializing the lifting arm

If the cassette is removed to clear jams with the fixing arm raised, the cassette cannot be inserted again. If the cassette is inserted forcibly, the arm may be damaged. To initialize the lifting arm position (move the arm down), with the toner cartridge installed turn the power off and on again or open and close the printer door or front cover, then, insert the cassette.



NOTE

Paper feed jam detection

There are two types of paper jam which may occur:

a) Paper feed delay jam

The paper feed delay jam occurs if the paper edge sensor does not detect the leading edge of the recording paper within a specific time* (including paper feed jam detection retry time) after the pickup solenoid releases the pickup roller.

* Within 3.5 sec. in the case of the Multi-purpose tray.

Within 8 sec. in the case of the Cassette.

b) Paper feed stationary jam

The paper feed stationary jam occurs if the trailing edge of the recording paper is not detected within 11.7 seconds after the paper edge sensor detects the leading edge of the recording paper.

When either of these jams is detected, the message **"CLEAR PAPER JAM"** is displayed. If this machine is receiving, the data is received via memory reception. If the machine is copying from memory, the image data in memory will be cleared.

To clear a paper feed jam, open the front cover and remove the jammed recording paper from inside. When the front cover is closed, the recording paper is automatically output. When jammed recording paper is removed from inside without opening the front cover, open and close the front cover once to reset the printer.

Paper size error

The machine does not have a paper size sensor. It recognizes the paper sizes (Letter, A4, and Legal) according to the User setting.

A paper size error occurs if the specified paper size is different from the size of the paper placed in the sheet feeder when one page is actually printed. In this case, a message **"CHECK PAPER SIZE"** appears on the display, the ALARM lamp blinks, and the following operation is carried out.

If the specified paper length is greater than the actual paper length:

When the received document comprises one page, one sheet is printed and operation ends. The error message remains displayed, so clear the error message. When the received document comprises two or more pages, it is received in memory from the second sheet onward. Printing automatically starts from the 2nd sheet onwards after the error is corrected.

If the specified paper length is less than the actual paper length:

Regardless of whether the document consists of only one sheet or two or more sheets, it will be received in memory.

The document is automatically output after the error is corrected.

To correct the error, match actual recording paper with the User setting.

In this case of direct copying, a **"check paper size"** will not occur even if the size is different from that of the recording paper as long as the pickup is from the multi-purpose tray; if the pickup is from the cassette, however, a **"check paper size"** will occur.

In the case of memory copying, on the other hand, a **"check paper size"** will occur if the size is different from that of the recording paper when pickup is from either the cassette or the multi-purpose tray.

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4. PRINTER SECTION

The LASER beam printer engine comprises the following sections.

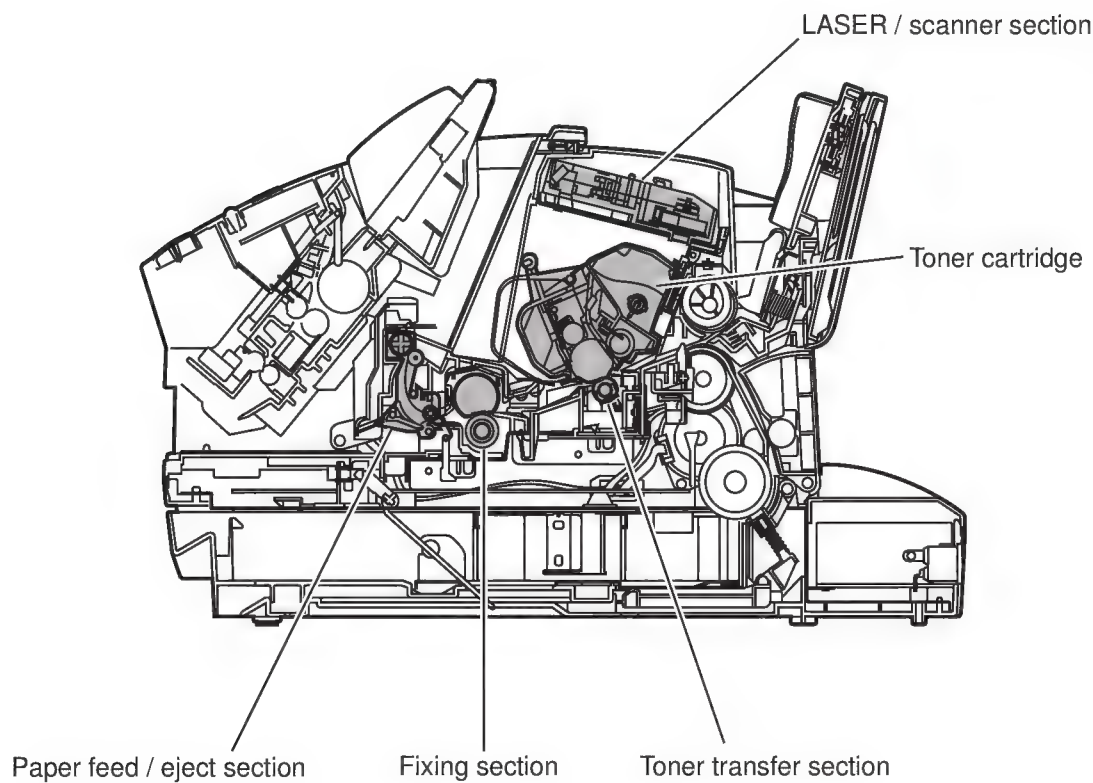


Figure 2-5 Printer Section

4.1 LASER/Scanner Section

This section comprises a LASER unit, cylindrical lens, 4-faced polygon mirror, scanner motor, imaging lens, reflection mirror and BD unit. The LASER is driven in accordance with the LASER drive signals that are sent from the PCNT board. This LASER light passes through the cylindrical lens to fall on the 4-faced polygon mirror that is rotating at a fixed speed. The LASER light is reflected from the 4-faced polygon mirror and passes through the imaging lens, and reflects from the reflection mirror to scan the photosensitive drum in the toner cartridge.

4.2 Toner Cartridge

This cartridge comprises the primary charging roller, developing cylinder, photosensitive drum, cleaner blade, and toner.

The LASER beam from the LASER/scanner section forms a latent static image on the photosensitive drum that is charged by the primary charging roller. The photosensitive drum rotates inside the toner cartridge, and rotation of the developing cylinder causes toner to adhere to the photosensitive drum to form a visible image which is then transferred to the recording paper at the toner transfer section. Residual toner is then removed from the surface of the photosensitive drum by the cleaning blade.

4.3 Toner Transfer Section

This section comprises the transfer charging roller and the static eliminator. The recording paper passes between the photosensitive drum and the transfer charging roller, and the transfer charging roller is charged with a charge opposite to that of the toner to transfer the toner on the photosensitive drum to the recording paper. The charge on the rear side of the recording paper is then removed by the static eliminator.

4.4 Fixing Section

This section comprises the fixing ass'y and pressure roller. The fixing section on this machine is an on-demand system that uses fixing film with low thermal capacity.

The toner that was transferred to the recording paper at the toner transfer section is fused to the paper and fixed as a permanent image.

The fixing ass'y has a built-in fixing heater and thermistor. The fixing temperature is controlled by the printer controller on the SCNT board.

4.5 Paper Feed/Eject Section

After toner is fixed in the fixing section, the recording paper is fed to either the face-up delivery slot or the face-down delivery slot that is switched by the flapper. The user selects the setting of the flapper by the paper delivery selector at the bottom left of the front panel.

All rollers from paper feed through paper ejection are driven by the main motor.

1. Paper eject sensor

An actuator is used to detect the leading edge of the recording paper that is fed towards the ejected paper. The detection information is sent to the SCNT board.

2. Flapper

This flapper switches the direction in which the recording paper is ejected after toner is fixed.

3. Paper overflow detection

The paper overflow sensor on the face-down paper eject cover detects paper stack overflow in the face-down delivery slot during face-down output.



BD Malfunction

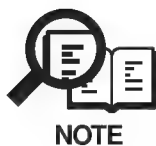
If the total number of sheets printed after turning the power ON is four or more, and BD is out of the BD cycle for 2.0 seconds or more during laser drive while the scanner motor is rotating at fixed speed, the printer controller judges this to be a BD malfunction.

Scanner Motor Malfunction

If the predetermined speed of rotation is not reached within 3.0 seconds of start of scanner motor rotation, the printer controller detects a scanner motor malfunction and stops the scanner motor.



The LASER/scanner unit contains parts that require adjustment that must be adjusted.
Never disassemble the LASER/scanner.



No-toner detection

The no-toner state is detected by the toner sensor (magnetic sensor) located on the pickup roller shaft. If a toner cartridge is installed, the toner sensor touches the side of the cartridge. The part of the cartridge which the toner sensor touches is made thinner to increase the sensor output. When the toner sensor detects no toner, the sensor output goes low.

Cartridge detection

A microswitch detects cartridge presence and front cover open/closed. The microswitch is structured so that it is shorted only when the cartridge is loaded and the front cover is closed.



Drum cover shutter

If the photosensitive drum is subjected to strong light, optical memory can cause dropout areas or black bands to occur. To prevent the photosensitive drum from strong light, a drum cover shutter is attached. Do not open this cover unless absolutely necessary.



NOTE

Fixing Heater Malfunction

The printer controller on the SCNT board detects a fixing heater malfunction in the following instances.

- a) When a temperature of 100°C or more is not detected within 15 seconds after the fixing heater begins heating toward the normal preset target temperature.
- b) When a fixing unit temperature of 195°C or more continues for 150m seconds.
- c) When a temperature of 20°C or more is not detected even though the power is supplied for 0.5 seconds during printing or warming up.
- d) When a temperature of less than 0°C is detected for 150m seconds during fixing heater control.
- e) When the fixing heater temperature falls to 90°C or lower for 3 seconds during printing.

When a fixing heater malfunction is detected, this machine shuts off the power supply to the fixing heater, stops the main motor, scanner motor and high-voltage systems, and generates a printer error.

Paper eject jam detection

There are two types of paper eject jam which may occur.

a) Paper eject stationary jam

A paper eject stationary jam occurs when the paper eject sensor detects the paper between 3.3 and 4.7 seconds after the paper edge sensor detects the trailing edge of the paper.

b) Paper eject delay jam

A paper eject delay jam occurs if the paper eject sensor detects “no paper” between about 5 seconds after the paper edge sensor detects the leading edge of the paper and about 2.5 seconds after paper edge sensor detects the trailing edge of the paper. Fixing unit windup jams are also detected by this method.

When either of these jams are detected, “**CLEAR PAPER JAM**” is displayed. If the jam occurs during reception, the data is received in memory. If it occurs in memory copy mode, the image data in memory is cleared.

To clear a paper eject jam, open the front cover, and remove the jammed paper. Output resumes automatically when you close the front cover. If you remove the jammed paper without opening the front cover, open and close the front cover once to reset the printer.

When a fixing unit windup jam occurs, remove the delivery cover to access the jammed paper, then remove the jam.

Paper delivery slot switching

The paper delivery slot can be switched by the paper delivery selector located at the bottom left on the front of the machine. After fixing, the paper is fed to the flapper, which guides it to one of two delivery slots. When the paper delivery selector is set to the up position, the flapper is lowered to guide paper to the face-down delivery slot. The paper is delivered face-down, so that pages are stacked in numeric order. When the paper delivery selector is set to the down position, the flapper is raised to guide paper to the face-up delivery slot.

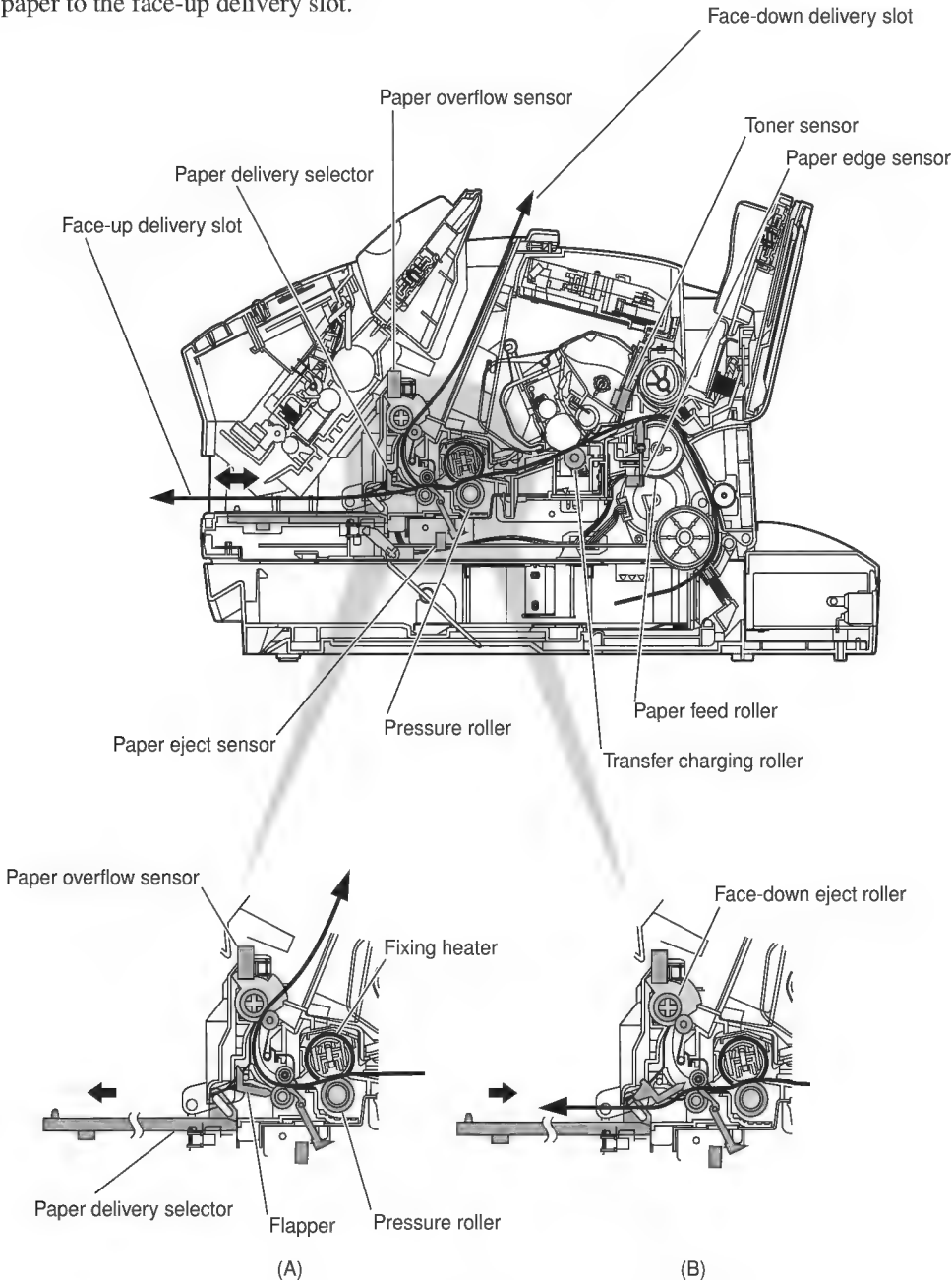


Figure 2-6 Paper Delivery Slot Switching



Paper delivery

Always be sure to use the face-up delivery slot when recording onto envelopes, label paper or transparencies. Using the face-down slot can result cause jams and damage the recording medium.

5. ELECTRIC CIRCUIT

5.1 Component Block Diagram

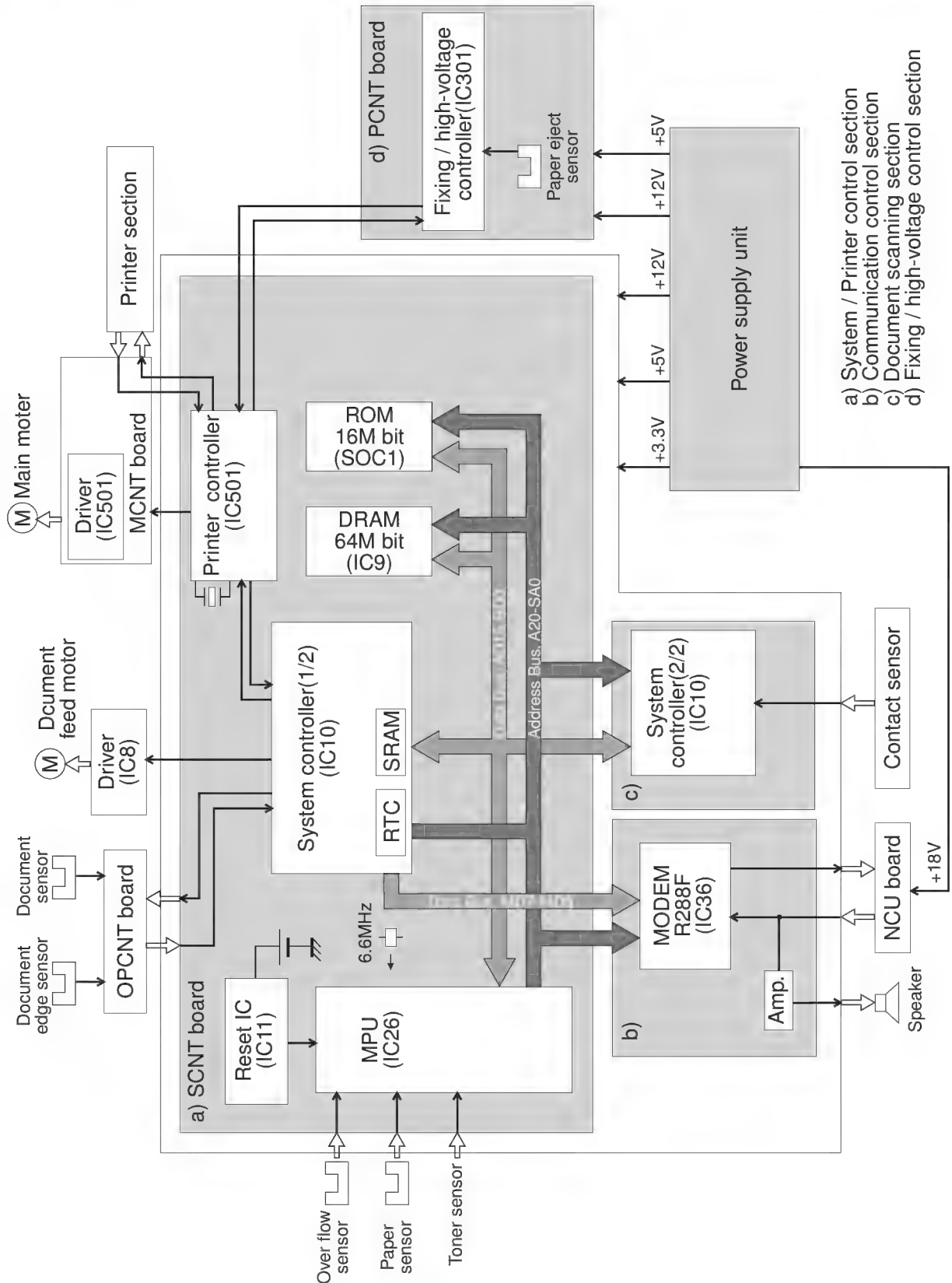


Figure 2-7 Block Diagram

5.2 Circuit Board Components

a) System control section

The system controller is made up of the following components, and controls the entire fax system.

a-1) MPU (Micro Processor Unit) (IC26)

The main functions of the NEC μ PD703102GJ-A33 MPU are as follows:

- 32 bit CPU
- 16 bit address bus
- 16 bit data bus
- DMA control
- A/D converter
- Software CODEC
- Interrupt control unit

a-2) System controller (IC10)

The system controller is a gate array for controlling MPU peripheral devices. The main functions of the system controller are as follows:

- Printer resolution conversion (Smoothing)
- LBP video interface

The LBP video interface transfers print signals to or from the printer controller and sends them to the MPU. The interface transmits an image signal (nVDO) and a vertical sync signal (nTOP) to the printer section, receives a horizontal sync signal (nBD) and printer section status from the printer section and transfers them to the MPU.

- OPCNT serial interface
- DRAM/SRAM controller

Controls DRAM/SRAM read/write and refreshing.

- Document feed motor control
- Reduction in vertical scanning
- Recording decoder
- Pickup solenoid control
- RTC (Real Time Clock) control

The RTC is backed up by lithium battery, and counts the data and time.

- SRAM

SRAM is backed up by lithium battery. SRAM holds data registered for system control and communications management information.

a-3) Main ROM (SOC1)

This 16 Mbit ROM contains the control programs (e.g. operation panel, scanner and communications section etc.) for this fax.

a-4) DRAM (IC9)

This 64 Mbit is used as memory for storing image data, and as an MPU work area.

b) Communication control section

Modem IC (IC36)

A Conexant R288F-26 (PLCC type) is used as the MODEM IC. The MODEM IC carries out G3 modulation conforming to ITU-T standards V.34, V.29, V.27ter, V.21 and V.8 on transmitted data received from the MPU during transmission. During reception, the MODEM IC carries out G3 modulation on received signals from the telephone line, according to the same standards.

c) Document scanning section**c-1) System controller (IC10)**

The system controller IC include image processing function (UHQ) are as follows:

- Serial-to-parallel conversion
- A/D conversion
Input signals from the contact sensor are A/D converted.
- ABC(Auto Background Control)
Sets the slice level for each scan line.
- Edge enhancement processing
- Binaryzation processing
- Halftone processing

d) Printer control section (SCNT board)

The printer control section is made up of the printer controller IC (IC 501). The printer controller IC is a microcomputer that incorporates a Fujitsu MBCU34102-105 8kbyte ROM and a 256byte RAM. The ROM contains printer control software to control LBP operations.

The printer control section receives commands from the system controller IC and controls paper pickup and loading, and the LASER/scanner unit.

The printer control section transfers the signal received from the printer section to the system controller IC as printer status.

The printer controller IC has the following other functions:

- Main motor control
- Fixing heater control
- Fixing heater temperature detection
- BD signal detection
- LASER drive control
- APC control
- Scanner motor, fixing ass'y, or BD failure detection
- Control of high-voltage power supply

e) Fixing/high-voltage controller (IC301)**Fixing heater control**

The overvoltage prevention function is available to control power supply to the fixing roller heater using a heater drive signal (FSRD) from the SCNT board, detect resistance value of the thermistor in the fixing roller heater, prevent fixing roller heater temperature rise using a thermal fuse, protect the print PC board against overvoltage.

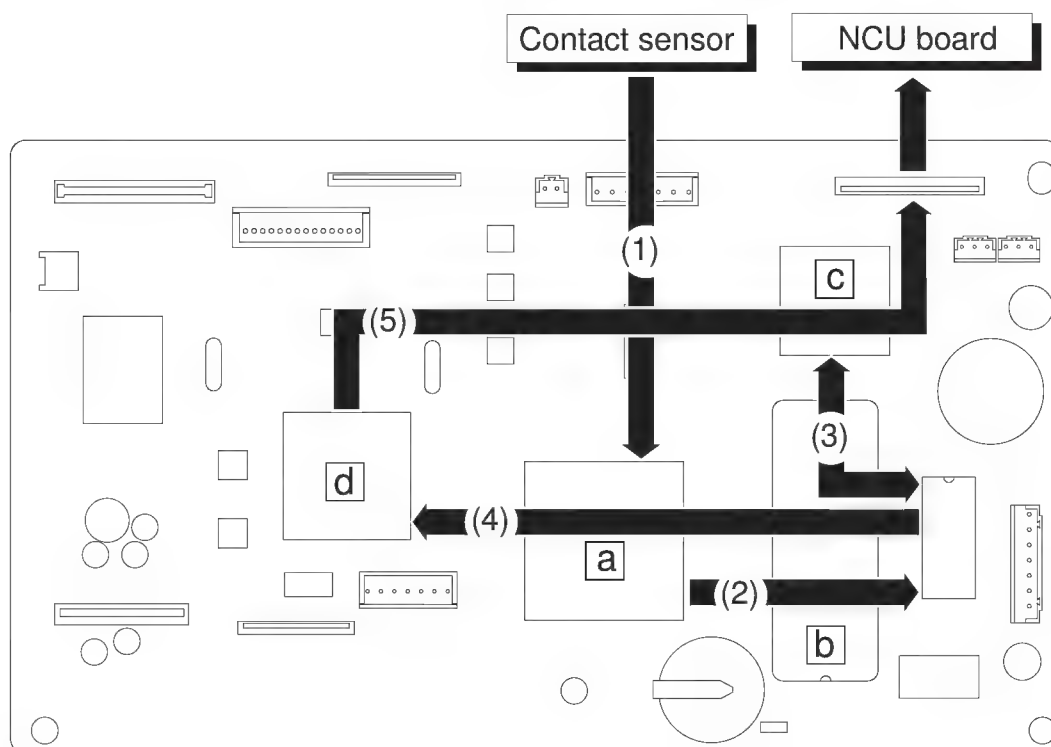
High-voltage power supply

The high-voltage power supply provides the high voltage required for primary charging, development, and transfer using a control signal from the SCNT board.

5.3 Flow of Image Signals

a) G3 transmission

- (1) With the LED as a light source, the image is scanned by the contact sensor, and analogue image data sent to the SCNT board.
- (2) The System controller IC (Internal UHQ unit) converts analogue image data from the contact sensor to digital image data.
- (3) The system controller IC converts processed image data from serial data to parallel data, and writes them to the DRAM.
- (4) The MPU encodes raw data in the DRAM using a soft codec, and rewrites the encoded data into the DRAM.
- (5) The MODEM IC modulates the coded image data.
- (6) The modulated data are then sent from the MODEM IC to the NCU board.



- | | |
|---|----------------------|
| a | System controller IC |
| b | DRAM |
| c | MPU |
| d | MODEM IC |

Figure 2-8 G3 Transmission Image Signal Flow

b) G3 Reception

- (1) Image signals received by L1, L2, pass through the hybrid circuit in the NCU, and are amplified. The modem demodulates these image, and writes them to the DRAM.
- (2) The MPU decodes the demodulated image data, checks errors, stores it in the DRAM, encodes the data and rewrites it into the DRAM.
- (3) After one page is received, the encoded data in DRAM is decoded by the system controller IC.
- (4) The system controller IC then converts the resolution of the fax data to the appropriate resolution for the printer data, and send it to the printer controller IC on the SCNT board.
- (5) The printer controller IC prints data by controlling the main motor, LASER, and high voltage according to the received print data.

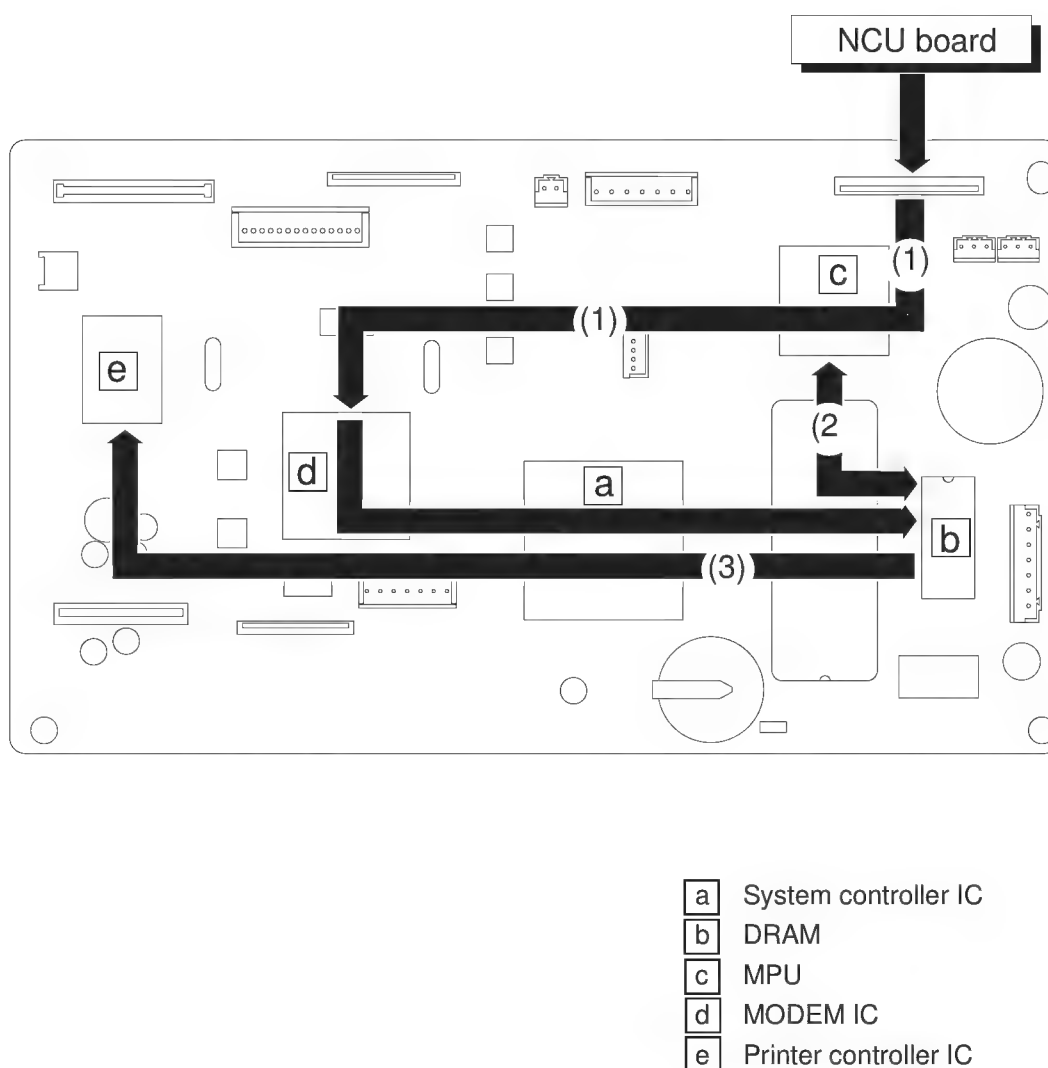


Figure 2-9 G3 Reception Image Signal Flow

6. COMMUNICATION SYSTEM OPERATIONS

6.1 FAX/TEL Switching

This fax is set to automatically switch between fax and telephone, on the same telephone line. If the other party is a fax, the fax is received automatically, and if the other party is a telephone, the alarm in the main unit is rung to alert the user. This fax sends a pseudo-RBT to the sender during FAX/TEL switching. It sounds a pseudo-bell when the other party is a telephone.

6.1.1 Settings

- (1) Press the *Receive MODE* button to select Fax/Tel mode.
- (2) Set the parameters in “**Receive Mode**” menu.

6.1.2 Parameters

Item	Default setting	Setting switch	Selection range
RING START TIME (Pseudo Ring start time)	8 sec	User data	0 to 30 sec
F/T RING TIME (Pseudo Ring time)	22 sec	User data	10 to 60 sec
F/T SWITCH ACTION (Operation after FAX/TEL switching)	RECEIVE	User data	RECEIVE/ DISCONNECT
Pseudo RBT frequency	400 Hz	None	None(fixed)
Pseudo RBT transmission from CML on time until start (CNG detection time)	4 sec	Service data #3 16	0 to 9 sec
Pseudo RBT pattern on time	1000 ms	Service data #3 17	0 to 9990 ms
Pseudo RBT pattern off time (short)	0 ms	Service data #3 18	0 to 9990 ms
Pseudo RBT pattern off time (long)	4000 ms	Service data #3 19	0 to 9990 ms
Pseudo RBT transmission level	-10 dBm	Service data #3 24	-15 to 0 dBm
Pseudo ring frequency	25 Hz	Service data #2 10	17 Hz/25 Hz/50 Hz
Pseudo ring pattern on time	1000 ms	Service data #3 20	0 to 9990 ms
Pseudo ring pattern off time (short)	0 ms	Service data #3 21	0 to 9990 ms
Pseudo ring pattern off time (long)	4000 ms	Service data #3 22	0 to 9990 ms

6.2 Answering Machine Connection

This connection is for effective use of an answering machine connected to the extension telephone jack. If the other party is a telephone, the answering telephone records the message, and if the other party is a fax, the fax receives automatically.

6.2.1 Settings

- (1) Connect the answering machine to the extension telephone jack, and set the answering machine to **"ANSWER"**.
- (2) Press the fax's *Receive MODE* button and select the **ANS.MACHINE MODE**.

6.2.2 Parameters

Item	Default setting	Setting switch	Selection range
Signal detection time	60 sec	Service data #3 25	0 to 999 sec

6.3 Manual/Auto Reception Switching

Determines if the fax switches to document receive mode after the fax rings for a specified time when the fax is in the manual receive mode.

6.3.1 Settings

- (1) Set the **"MAN/AUTO SWITCH"** in the user data **"RX MODE"** to **"ON"**.
- (2) Set the number of seconds that the fax will wait after detecting ringing signal from the telephone line before going into reception, using user data **"F/T RING TIME"** in **"MAN/AUTO SWITCH"**.

6.3.2 Parameters

Item	Default setting	Setting switch	Selection range
MAN/AUTO SWITCH	OFF	User data	ON/OFF
F/T RING TIME	15 sec	User data	1 to 99 sec

7. NEW FUNCTION

7.1 High-speed Transmission

The image transmission time is reduced drastically compared with the previous models by the V.34 modem (maximum transmission speed 33600 bps) recommended by ITU-T.

7.1.1 V.8/V.34 protocol

a) Outline

- The V.8 protocol is used as the startup protocol to move to V.34. The V.8 protocol enables connection with fax machines, data modem and equipment using existing V-series modems. The V.34 modem contains a modem circuit based on the previous recommendation to connect with the previous modems and has upper compatibility.
- The actual data transmission speed is improved entirely on average by speeding the modulation method and utilizing new techniques, such as the pre-emphasis technique^{*1} for increasing the S/N (signal-to-noise) ratio and the probing technique^{*2} for measuring line characteristics and optimizing the modem operation according to the line condition.
- The V.8 protocol, V.34 pre-protocol and post-protocol use full-duplex transmission to speed the processing.
- Fourteen image transmission speeds^{*3} are available:
33600, 31200, 28800, 26400, 24000, 21600, 19200, 16800, 14400, 12000, 9600, 7200, 4800, and 2400 bps
- The modulation speed (baud rate)^{*4} can be selected from among 2400, 3000, and 3200 symbols/sec (required) or 2743, 2800, and 3429 symbols/sec (option). The data transmission speed can be set more finely than the previous modems.



NOTE

*1 The output level of a high-frequency zone with comparatively high noise is raised, and then the transmission signal is sent.

*2 A tone signal known as a probing signal (L1 and L2) is output, and the receiving side measures the characteristics of the line.

*3 The data signaling rate is recorded in the ITU-T standards manual. Image transmission speed means the same as data signaling rate.

*4 The symbol rate is recorded in the ITU-T standards manual. Symbol rate means the same as moderation speed and baud rate.

2743 symbol/sec cannot be used with this fax.



NOTE

1. The V.34 protocol uses ECM. If the ECM SW in user data is set to OFF, the V.8 protocol is not executed. Therefore, the V.34 protocol is not used, and V.17 or a lower protocol is selected.
2. If the transmission speed is set to 14400 bps or lower, the V.8 protocol is not executed and V.17 or a lower protocol is selected.
3. After the V.21 protocol is selected first, it can be changed to V.8 or V.34. (See c-1))
4. When the V.34 protocol begins, it falls back within the V.34 protocol, but it does not fall back to the V.17 mode or lower.

b) Typical protocol

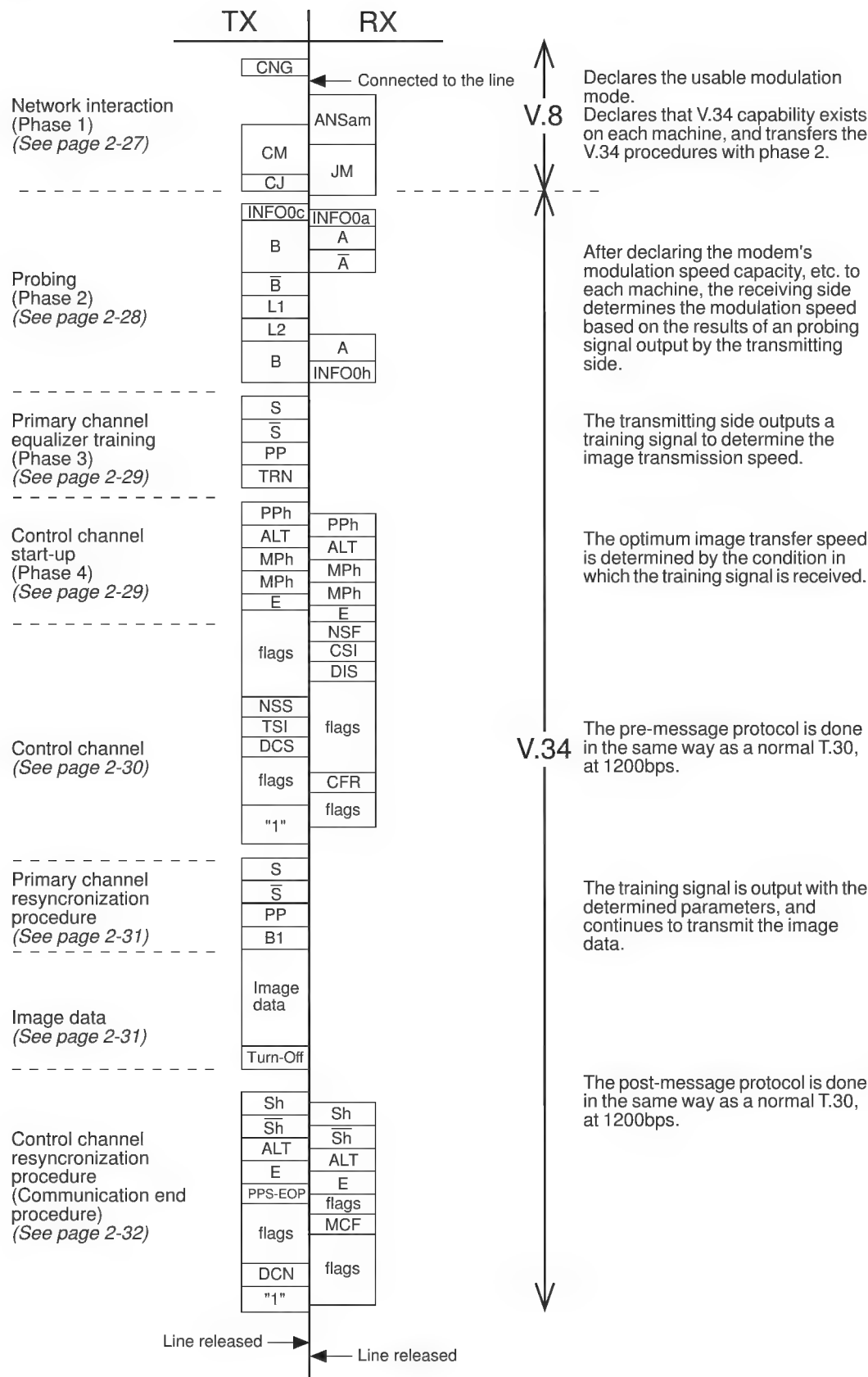


Figure 2-10 Typical Protocol

b-1) Network interaction (Phase 1)

The V.8 protocol is used as the startup protocol for high-speed modem V.34.

The V.8 protocol determines the best modulation method (V-series modem mode) that is available between the transmitter and receiver.

• Transmitter

Signal	Abbreviation	Meaning	Remarks
Calling tone	CNG	1100-Hz tone signal specified by T.30 to identify an auto-matic-calling fax machine.	
Dial-tone menu signal	CM	Indicate an available modulation method (V.21, V.27ter, V.29, V.17, or V.34).	Modulated by V.21(L)* ¹ .
CM terminator	CJ	Indicate JM signal detection and CM signal termination.	Modulated by V.21(L)* ¹ .
Dial-Tone display signal	CI	Indicate the general transmission function. Sent to resume the V.8 protocol.	Late start only. (See <i>Figure 2-11</i> .) Modulated by V.21(L)* ¹ .

• Receiver

Signal	Abbreviation	Meaning	Remarks
Modified response tone	ANSam	2100-Hz tone signal amplitude-modulated by 15 Hz.	Equivalent to CED for previous models.
Common menu	JM	Indicate the terminal type, such as a fax machine, and an available modulation method in response to the available modulation method reported by the CM from the transmitter.	Modulated by V.21(H)* ¹ .

*¹ V.21(L): Low-frequency channel defined by V.21 recommendation
1080±100 Hz (980 Hz:1, 1180 Hz:0)

Transmission speed: 300bps

V.21(H): High-frequency channel defined by V.21 recommendation
1750±100 Hz (1650 Hz:1, 1850 Hz:0)

Transmission speed: 300bps

b-2) Probing (Phase 2)

The line characteristics are measured and modulation-related parameters, such as symbol rate, are set.

• **Transmitter**

Signal	Abbreviation	Meaning	Remarks
INFO sequence	INFO0c	Indicate modem capabilities, such as baud rate and frequency transmission function (two frequency bands used to measure line characteristics), and request adjustment.	Transmission speed: 600bps
Tone B	B	Modem synchronization with a 1200-Hz tone signal.	The phase of the B-signal is inverted 180 degrees from the phase of the B signal.
Tone \bar{B}	\bar{B}		
Probing signal L1	L1	Tone signal for analyzing line characteristics by probing.	Probing: Measurement of line characteristics. Tone signal in the range 150 to 3750 Hz in 150-Hz steps.
Probing signal L2	L2		

• **Receiver**

Signal	Abbreviation	Meaning	Remarks
INFO sequence	INFO0a	Report the modem capabilities, such as baud rate and frequency transmission ability.	Transmission speed: 600bps
Tone A	A	Modem synchronization with a 2400-Hz tone signal.	The phase of the A-signal is inverted 180 degrees from the phase of the A signal.
Tone \bar{A}	\bar{A}		
INFO sequence	INFO0H	Report the pre-emphasis filter and baud rate used for data transmission based on the result of analysis of the probing signal.	Transmission speed: 600bps

b-3) Primary channel equalizer training (Phase 3)

Filters, such as equalizers, are trained (adjusted) with the parameters set in phase 2.

• Transmitter

Signal	Abbreviation	Meaning	Remarks
S signal	S	Short training	The phase of \bar{S} is shifted from the phase of S.
\bar{S} signal	\bar{S}		
PP signal	PP	The other modem uses this signal to train the equalizer.	
TRN signal	TRN	The receiver uses this signal to determine the transmission speed.	

b-4) Control channel start-up (Phase 4)

Select the maximum data signalling rate and trellis encoder and set the data signalling rate that can be supported.

• Transmitter/receiver

Signal	Abbreviation	Meaning	Remarks
PPh signal	PPh	The other modem uses this signal to train the equalizer.	
ALT signal	ALT	_____	
Modulation parameter	MPh	Indicate the image transmission parameters, such as maximum data signal speed, control channel data signal speed, trellis coding type, precoding type, and baud rate.	
E sequence	E	_____	20-bit sequence of binary 1's

b-5) Control channel

The conventional T.30 protocol is executed.

The transmission speed is 600bps.

• Transmitter

Signal	Abbreviation	Meaning	Remarks
Flag	flags	Maintain synchronization	7E (H)
Non-standard facilities set-up	NSS	Receive NSF from the other party, select an available mode from it, and instruct reception.	
Transmitting subscriber identification	TSI	Report the transmitter telephone number.	
Digital command signal	DCS	Instruct the available mode.	
_____	1	Declare to switch to high-speed protocol	Transmit 1'S

• Receiver

Signal	Abbreviation	Meaning	Remarks
Non-standard facilities	NSF	Report functions not recommended by ITU-T, user's ID, manufacturer code, etc.	
Called subscriber identification	CSI	Report the receiver telephone number.	
Modulation parameter	DIS	Report standard ITU-T-recommended functions.	
Flag	flags	Maintain synchronization.	7E (H)
Confirmation to receive	CFR	Report that modem training ends and image signal reception is ready.	

**NOTE**

In the control channel, signals which differ according to the frequencies of both TX and RX are output. It follows that the effects of the echo are not received because the frequencies of the signal returned by echo and the signal output by the other machine are different.

b-6) Primary channel resynchronization procedure

Training is performed with the parameters set in phase 4.

The transmission speed is 1200bps.

• Transmitter

Signal	Abbreviation	Meaning	Remarks
S signal	S	Short training	The phase of \bar{S} is shifted from the phase of S.
\bar{S} signal	\bar{S}		
PP signal	PP	The other modem uses this signal to train the equalizer.	
Sequence B1	B1	Scramble data frame transmitted at the end of start-up protocol.	

b-7) Image data

Transmit image data.

• Transmitter

Signal	Abbreviation	Meaning	Remarks
Image data	Image data	Encoded image data	
_____	Turn-off	_____	Send scrambled 1's for 35 ms.

b-8) Control channel resynchronization procedure (Communication end procedure)

Protocol for terminating transmission.

The transmission speed is 1200bps.

• Transmitter

Signal	Abbreviation	Meaning	Remarks
Sh signal	Sh	Short training	
Sh signal	Sh		
ALT signal	ALT	_____	
E sequence	E	_____	
End of procedures	PPS-EOP	One page is transmitted.	
Flag	flags	Maintain synchronization.	7E (H)
Disconnect signal	DCN	Disconnect the line.	

• Receiver

Signal	Abbreviation	Meaning	Remarks
Sh signal	Sh	Short training	
Sh signal	Sh		
ALT signal	ALT	_____	
E sequence	E	_____	
Flag	flags	Maintain synchronization.	7E (H)
Message confirmation	MCF	Indicate that the receiver has received the image signal correctly and can receive the next document immediately.	

c) Examples of sequences

The signals in the shaded areas are important in the protocol.

c-1) Late start

Since the receiver cannot detect the CM signal while sending the ANSam signal, it sends the DIS signal containing the "V.8 protocol" declaration. The transmitter sends the CI signal to request the receiver to send the ANSam signal again to move to V.8 protocol.

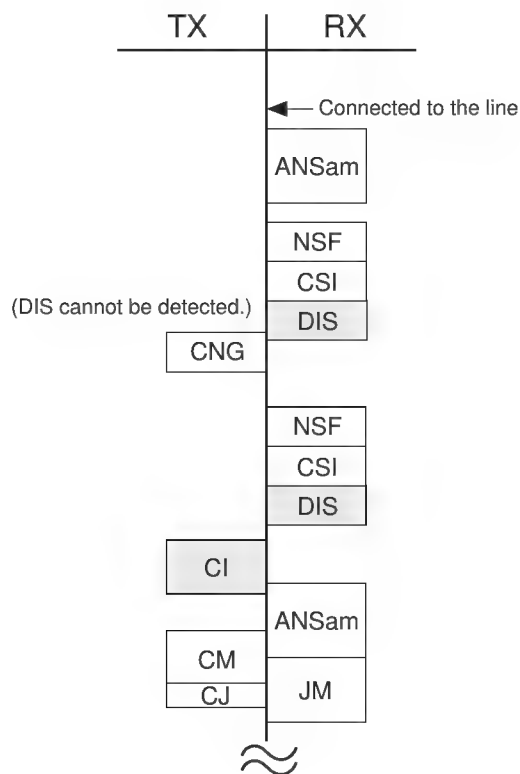


Figure 2-11 Late Start

c-2) Between-page sequence

The transmitter sends image data, then the PPS-MPS signal in the same as for the T.30 protocol. The receiver sends the MCF signal to receive the next page.

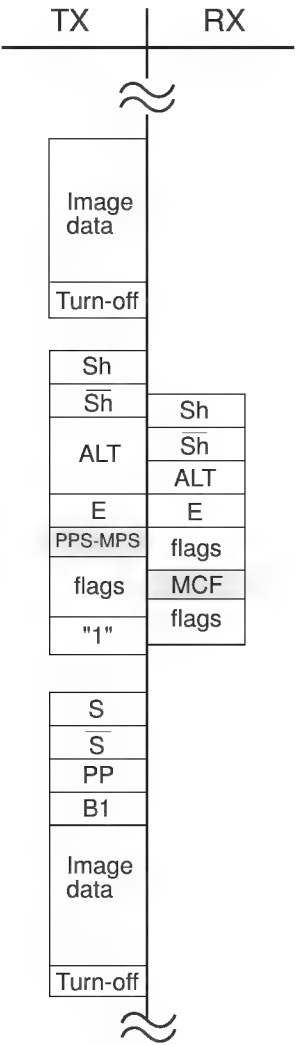


Figure 2-12 Between-page Sequence

c-3) Mode change

The transmitter sends PPS-EOM and the receiver sends the MCF signal. Then the receiver sends the DIS signal and the transmitter sends the DCS signal to change the mode.

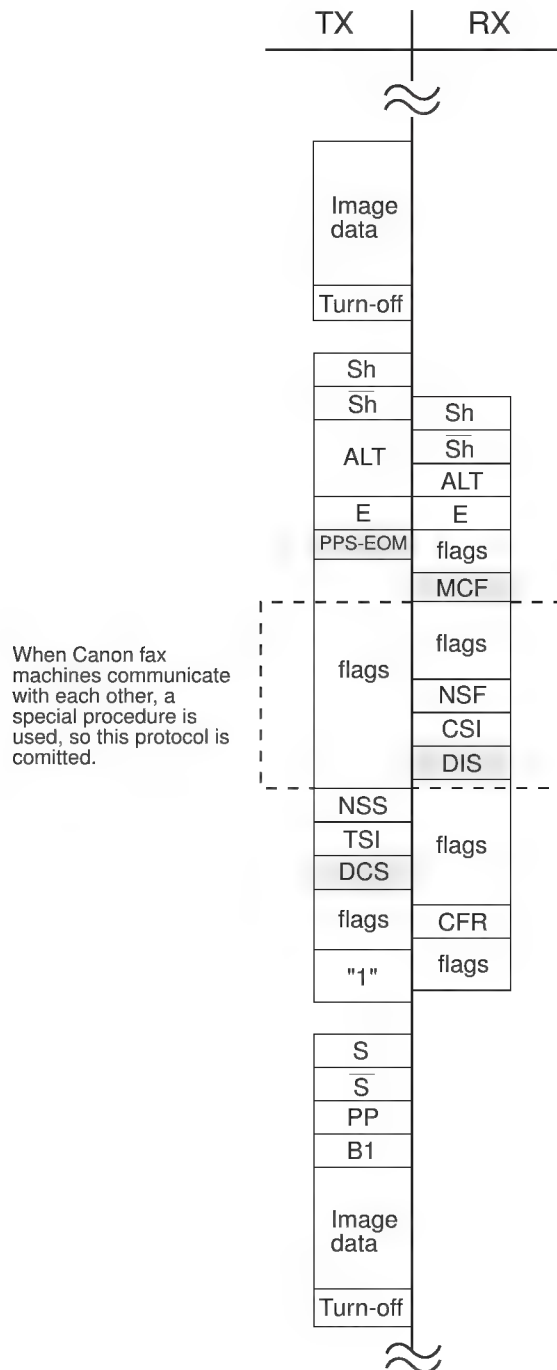


Figure 2-13 Mode Change

c-4) Image transmission speed change from the receiver

The receiver returns to the PPh signal in response to the Sh signal from the transmitter. The image transmission speed is then determined by the MPh sequence sent from both modems.

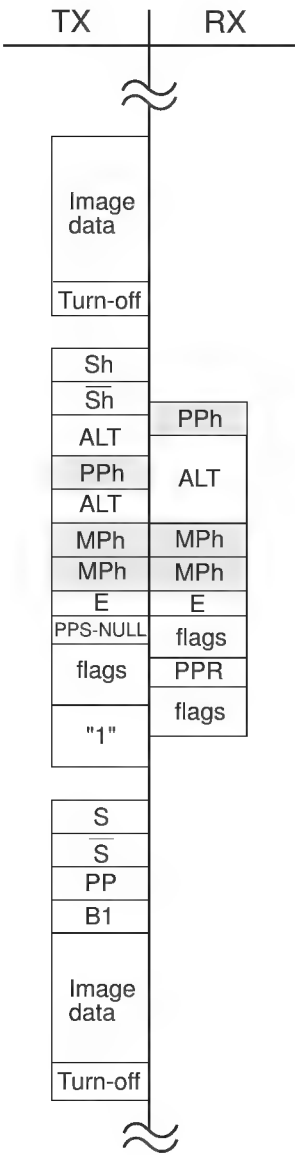


Figure 2-14 Image Transmission Speed Change from the Receiver

c-5) Image transmission speed change from the transmitter

The transmitter sends image data, and then the PPh signal, and the receiver returns the PPh signal to the transmitter. The image transmission speed is then determined by the MPh sequence sent from both modems.

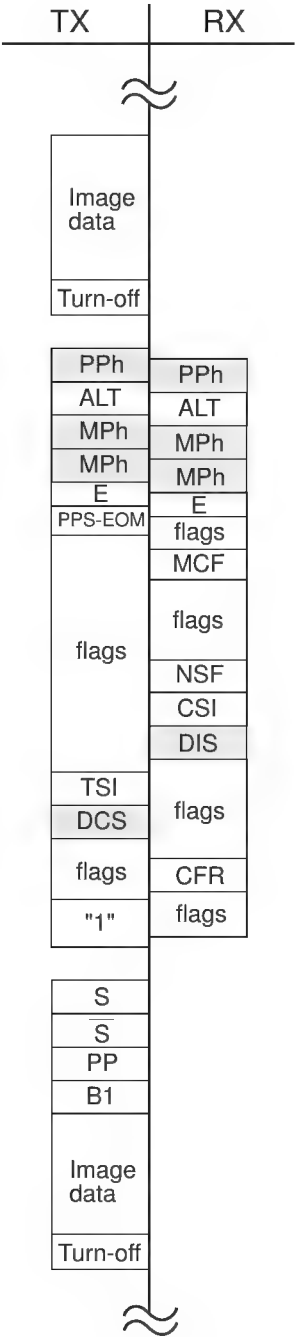


Figure 2-15 Image Transmission Speed Change from the Transmitter

7.2 JBIG Image Compression Encoding Method
7.2.1 Outline of the JBIG image compression encoding method

The JBIG Image Compression Encoding Method is recommended in ITU-T T.82/T.85 as a new bi-level (bi-level: White and Black) image compression encoding method developed by JBIG (Joint Bi-level Image experts Group).

The JBIG Image Compression Encoding Method has the following characteristics with regards to text documents, quasi-gray scale images with little continuous black and white, and gray scale images which use a dithering method: a higher compression rate (1.1 ~ 30 times higher) than the conventional MMR compression method, the encoded volume will not exceed the volume of original image information after compression, and when decoding, the image can be completely re-assembled to its original condition in the same way as with conventional MR/MMR.

The JBIG Image Compression Encoding Method contains Progressive Bi-level Image Compression for searching image databases, recommended in ITU-T T.82, and Single Progression Sequential Bi-level Image Compression for facsimile, recommended in ITU-T T.82 and T.85.
Images will take on the form shown below.

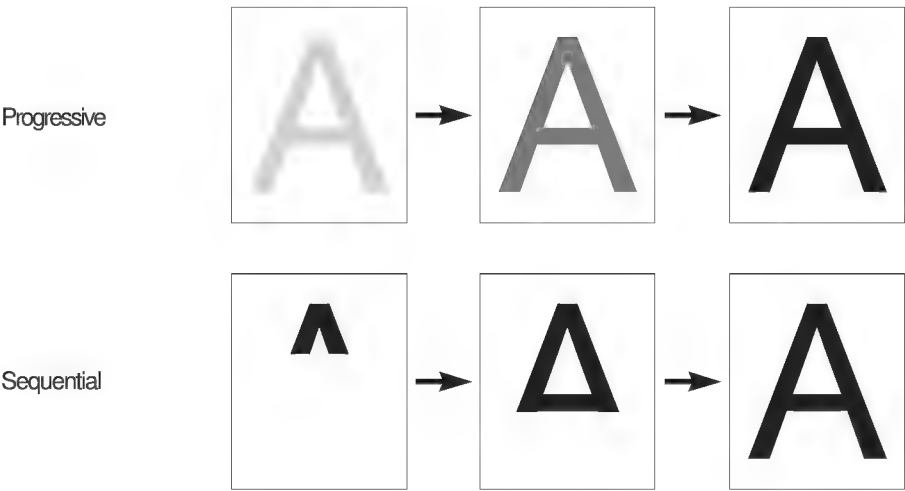


Figure 2-16 Images

**NOTE**

The characteristics of Progressive Bi-level Image Compression are explained below as a reference. First of all, after the original image has been read in at high resolution, it is converted to low resolution, and this low resolution image data proceeds to be encoded (compressed). On the receiving end, the overall original image can be quickly recognized by the steps in which this low resolution image compression data is received.

Next, to improve the quality of the low resolution image already sent, only information needed to improve the resolution is forwarded. The previous low resolution image is decoded on the receiving side with this information, and following this, the high resolution image is displayed on top of the previous low resolution image.

It is easy to quickly recognize the original image in the process of displaying the image from low resolution to high resolution in order by using this method, with a CRT display for example. Also, according to the situation, it is possible to interrupt the image transfer at the point where the original image is recognized to some degree by the receiving side.

This method requires a page buffer memory for the low resolution image because the low resolution images are used for the purpose of high resolution image encoding.

7.2.2 Single progression sequential bi-level image compression method

The Single Progression Sequential Bi-level Image Compression Method used in this fax is explained below. The Progressive Bi-level Image Compression Method uses multiple resolution layers on a single page (multi-level layers, low resolution layers~high resolution layers) to perform encoding/decoding. In the Single Progression Sequential Bi-level Image Compression Method, encoding is done in units of horizontal bands (a number of lines) called stripes, and is performed from left to right, top to bottom (this condition is called sequential), and in one resolution layer (single layer).

**NOTE**

In this method, the encoding is done in stripe units, so it is completed with a buffer memory much smaller than a page buffer memory.

The methods by which encoding takes place and by which image data is constructed after encoding are explained below.

7.2.3 Encoding method

In the JBIG encoding used in the Single Progression Sequential Bi-level Image Compression Method, uses in the encoder shown below to encode to the original the results of comparison of the line currently being processed and the previous line, as well as the predicted value of an image pixel (white or black) used in a model template.

The study table used in the prediction makes the next prediction more accurate by learning and correcting the study table every time the model template moves to the adjoining pixel. It is characteristic of this method that if the prediction is accurate the amount of encoding will not increase, and if the prediction is off the amount of encoding increases, so the increase in prediction accuracy of this study table is very important. An outline of the encoding procedure is shown below.

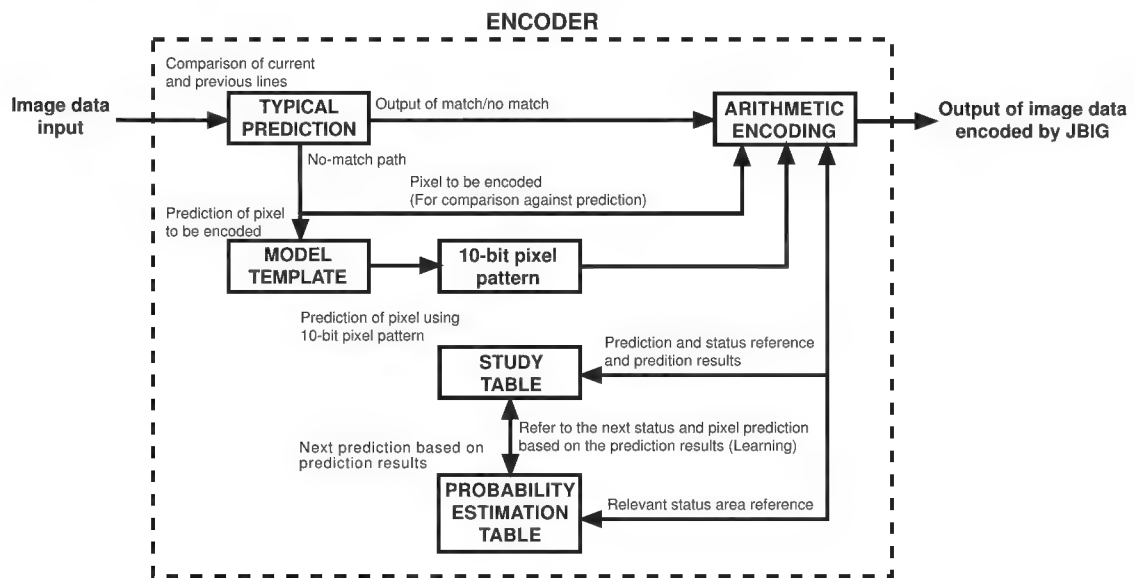


Figure 2-17 Encoder and Flow of JBIG Encoding

- a) In the pattern prediction section, the line currently being processed and the current line are compared, and judged to match or not match. A flag showing whether or not the lines match (1 bit, 0: match, 1: don't match) is attached to the head of each line according to this judgment. When the lines match, only this flag is encoded in the arithmetic encoding section as a suspected pixel, the pixel of the line being currently processed is not encoded. When the lines do not match, the pixel of the line currently being processed is encoded in the arithmetic encoding section based on the results of a comparison of the value of the actual pixel and the pixel (white or black) which is predicted using the model template and the study table.



When the lines are judged to match, the line currently being processed is said to be “typical” . When the lines are judged to not match, the line is said to be “not typical” . When the very first line of an image is predicted, the background color is used as the previous line.

- b) In the model template, the combination (10-bit pixel pattern) of 10 pixels is output to the arithmetic encoding section using the template shown below (inside the bold outline).

All of the 10-bit pixel patterns inside this template exist in the study table. This 10-bit pixel pattern is used by the arithmetic encoding section to refer to the predicted value of the pixel and the status number in the study table which correspond to the 10-bit pixel pattern.

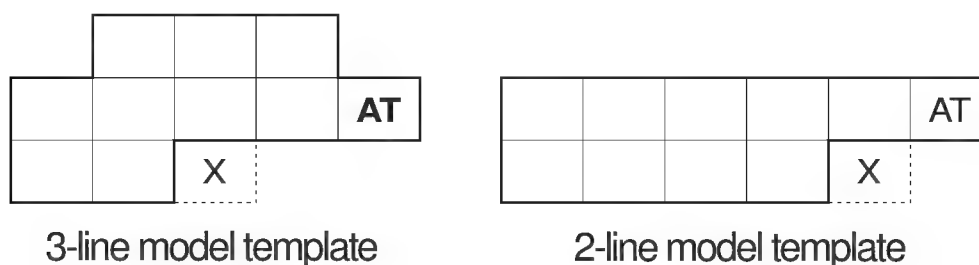


Figure 2-18 Model Templates



NOTE

There are two types of model templates 3-line and 2-line, and the one selected is designated by the LRLTWO inside the Bi-level Image Header section (BIH). The pixel shown by “X” is an encoded pixel and is outside of the template.

The pixel shown by “AT” is a special pixel known as an AT pixel. The AT pixel becomes a Adaptive Template by having its position moved, and is very effective when encoding a periodic pixel, similar to a dither pattern image.

The position of AT in the figure is the beginning position of the AT pixel.

In this fax, it remains fixed in this initial position, so Adaptive Template is not used.

- c) The study table, as shown below, is constructed by all of the 10-bit pixel patterns output by the model template, and their corresponding status numbers and predicted values of the pixel to be encoded. The predicted value of the pixel to be encoded and the status number is compared to the actual pixel in the arithmetic encoding section every time the model template is moved to the adjoining pixel. The result of this comparison (matches / does not match predicted value) and the status number are then checked by comparison to the probability estimation table, and the study table is corrected (learned) to a new prediction value and status number which will be used when the same pixel pattern is found again. By learning in this way, the probability of the study table matching the next time is increased, and the need for encoding decreased.

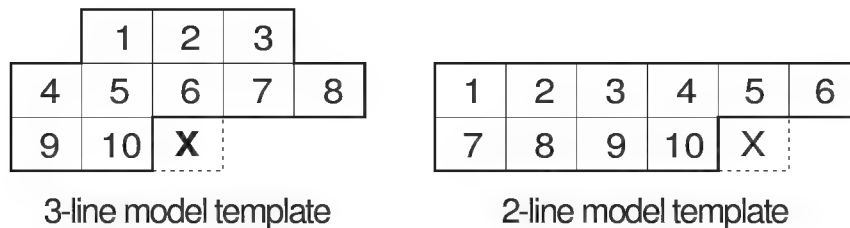


Figure 2-19 Positions of Pixels in Model Template

Table 2-1 Study Table (Initial values)

Pixel pattern in the model template												Predicted value of pixel	Status No. (ST)
Hex	Dec	1	2	3	4	5	6	7	8	9	10		
000h	0	0	0	0	0	0	0	0	0	0	0	0 (white)	0
001h	1	0	0	0	0	0	0	0	0	0	1	0 (white)	0
002h	2	0	0	0	0	0	0	0	0	1	0	0 (white)	0
003h	3	0	0	0	0	0	0	0	0	1	1	0 (white)	0
004h	4	0	0	0	0	0	0	0	1	0	0	0 (white)	0
005h	5	0	0	0	0	0	0	0	1	0	1	0 (white)	0
3FBh	1019	1	1	1	1	1	1	1	0	1	1	0 (white)	0
3FCh	1020	1	1	1	1	1	1	1	1	0	0	0 (white)	0
3FDh	1021	1	1	1	1	1	1	1	1	0	1	0 (white)	0
3FEh	1022	1	1	1	1	1	1	1	1	1	0	0 (white)	0
3FFh	1023	1	1	1	1	1	1	1	1	1	1	0 (white)	0

Table 2-2 Probability Estimation Table

ST	LSZ	NLPS	NMPS	SWITCH	ST	LSZ	NLPS	NMPS	SWITCH
0	5A1Dh	1	1	1	57	01A4h	55	58	0
1	2586h	14	2	0	58	0160h	56	59	0
2	1114h	16	3	0	59	0125h	57	60	0
3	080Bh	18	4	0	60	00F6h	58	61	0
4	03D8h	20	5	0	61	00CBh	59	62	0
5	01DAh	23	6	0	62	00ABh	61	63	0
6	00E5h	25	7	0	63	008Fh	61	32	0
7	006Fh	28	8	0	64	5B12h	65	65	1
8	0036h	30	9	0	65	4D04h	80	66	0
49	0706h	79	50	0	106	50E7h	108	107	0
50	05CDh	48	51	0	107	4B85h	109	103	0
51	04DEh	50	52	0	108	5597h	110	109	0
52	040Fh	50	53	0	109	504Fh	111	107	0
53	0363h	51	54	0	110	5A10h	110	111	1
54	02D4h	52	55	0	111	5522h	112	109	0
55	025Ch	53	56	0	112	59EBh	112	111	1
56	01F8h	54	57	0					

ST: Status number in the study table

LSZ: Probability estimation value (range) for inaccurate prediction

NLPS: Next status destination when a prediction is inaccurate

NMPS: Next status destination when a prediction is accurate

SWITCH: Next prediction value reversed if SWITCH=1 when prediction is inaccurate

Example:

A brief explanation of how the study table works is given below.

It is assumed that each of the model template pixels 1~10 in the image below are white.

1. In this case, the model template pixel pattern is 000h.
2. The predicted value of pixel pattern 000h for pixel "X" is "white", but it is actually black. Thus the prediction is "inaccurate".
3. The status ST is "0", so the probability estimation table is consulted, and the next status is moved to "1". At the same time, by the reversal of the predicted value, the next prediction is for "black".

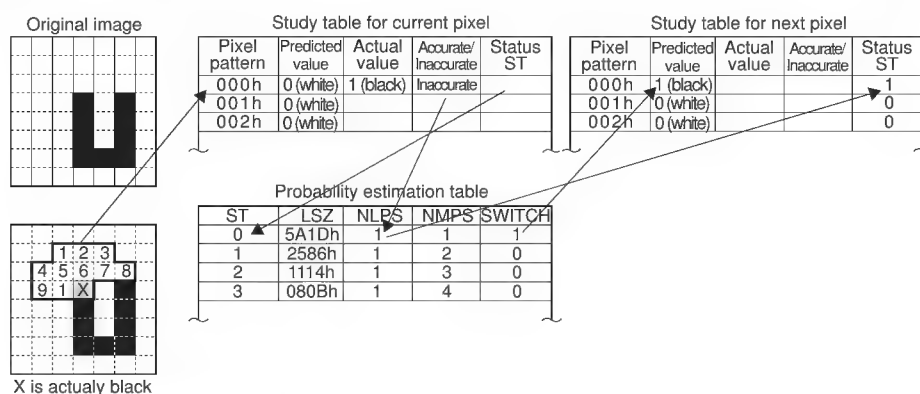


Figure 2-20 Study Table Study Example 1

4. Next, the model template is moved to the adjoining pixel in order to perform the next prediction. At this time, pixels 1~9 of the model template are white, and pixel 10 is black.
5. In this case, the model template pixel pattern is 001h.
6. The predicted value of pixel pattern 001h for pixel "X" is "white", and it is actually white. Thus the prediction is "accurate".
7. The status ST is "0", so the probability estimation table is consulted, and the next status is moved to "1". The prediction for the next pixel remains "white".

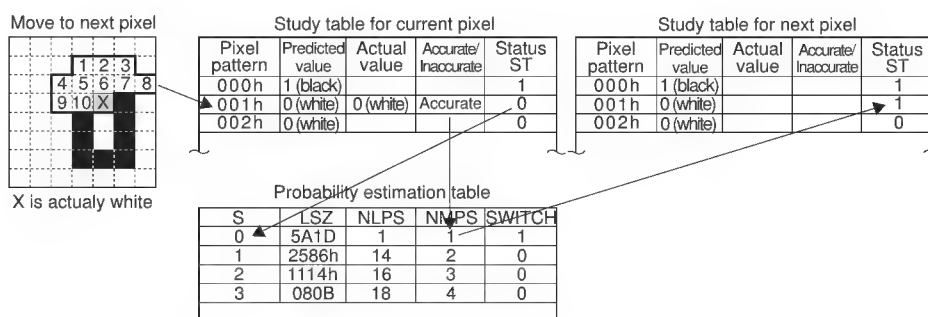


Figure 2-21 Study Table Study Example 2

The study table is constantly updated in this way, increasing the probability of accurate predictions.

- d) The probability estimation table, published in the ITU-T T.82. Its contents are fixed, differing from those of the study table.



NOTE

This table shows probability of accuracy/inaccuracy in the form of a range, according to the accurate/inaccurate results of a given status prediction value.

The plan of the probability estimation table is such that if the prediction is accurate, the range of the next status number will be smaller than would be the case in an inaccurate prediction.

The status number with this smaller range will be selected to be the next status number.

- e) After the predicted value is found to be accurate/inaccurate by the actual pixel, the model template, and the study table, that accuracy/inaccuracy is encoded in the arithmetic encoding section, and the encoded image data is output.
- f) In the encoding (mathematical encoding) done in the arithmetic encoding section, there is no conversion table for encoding as is the case in encoding with conventional MH and MR. Using the LSZ (probability estimation value of an inaccurate prediction: the form of a range) of the probability estimation table and the accuracy/inaccuracy of the predicted value as a base, encoding is done by showing the position of the progress of the prediction on an integer line (between 0~1.0). Encoding shown as a position on this integer line, take a position under MPS in the case of accurate predictions, and under LPS in the case of inaccurate predictions, as shown in the figure below.

Furthermore, there is a concept of range (A) in this arithmetic encoding. This range (A) ^{*2} is shown as an MPS range in the case of accurate predictions and as an LPS range in the case of inaccurate predictions for each pixel. When these ranges (A) are below a certain range ^{*3}, the leading edge bit (which excludes the encoding “0”. shown by the position on the integer line) shifts one position to the left as encoded image data, and is output. At this time, the limit of this range (A) which was below the certain range is narrow and it is difficult to show a position more detailed than this, so the range (A) is magnified ^{*4} to show it in more detail. This operation is called “**Renormalization**”, and this range (A) is reset to a value above a certain range ^{*3}.

The concept of arithmetic encoding is simply explained below.

The following assumptions are made in order to make the explanation easy to understand.

The probability of accuracy will be 50%, and the probability of inaccuracy will be 50%.^{*1}

The area of accuracy will be MPS, and the area of inaccuracy will be LPS.

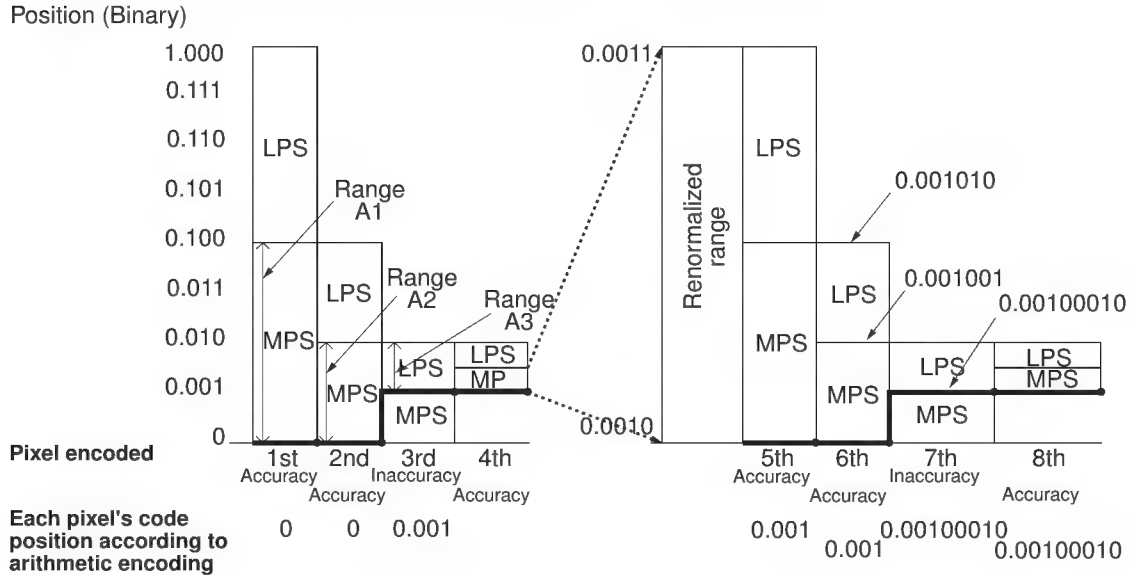


Figure 2-22 Arithmetic Encoding Conceptual Diagram

The special characteristic of this arithmetic encoding is that an additional encoding bit is not needed because the integer line position is the same as the integer line position of the previous encoding data in the case of an accurate prediction. It follows that the amount of encoding will not increase if accurate predictions continue, and the rate of compression will increase. Conversely, with inaccurate predictions, an additional encoding bit will be necessary to show the position of the inaccuracy in detail, and thus the amount of encoding will increase and the rate of compression decrease. In this way, the study table learns in order to increase the rate of accurate predictions and to reduce the amount of encoding and raise the compression rate during the encoding process, and then corrects the table parameters.



NOTE

*1 The actual probability varies with the status because of the extent to which LSZ occupies in the range (A).

*2 The actual range is hexadecimal 8000~10000.

In the case of an accurate prediction, range A1= hexadecimal 10000-LSZ, A2=A1-LSZ, and A3=A2-LSZ.

In the case of an inaccurate prediction, range A=LSZ.

*3 Actually, hexadecimal 8000.

*4 Actually, the hexadecimal value will be shifted to the left two times, and the hexadecimal will be over 8000.

Next, the encoding for continuous accurate predictions will be simply explained.
The assumptions below will be made for easy understanding.

The value of an accurate LSZ will be decimal 100*¹ in all statuses.
Range A will have limits of decimal 8000~10000*², and when range A is below decimal 8000*³, the lead encoding bit will be pushed out, and the encoded image data will be output.
At this time, Range A will be adjusted so that it is over decimal 8000*³ (decimal 1000*⁴ added).
An accurate range will be MPS, and an inaccurate range will be LPS.

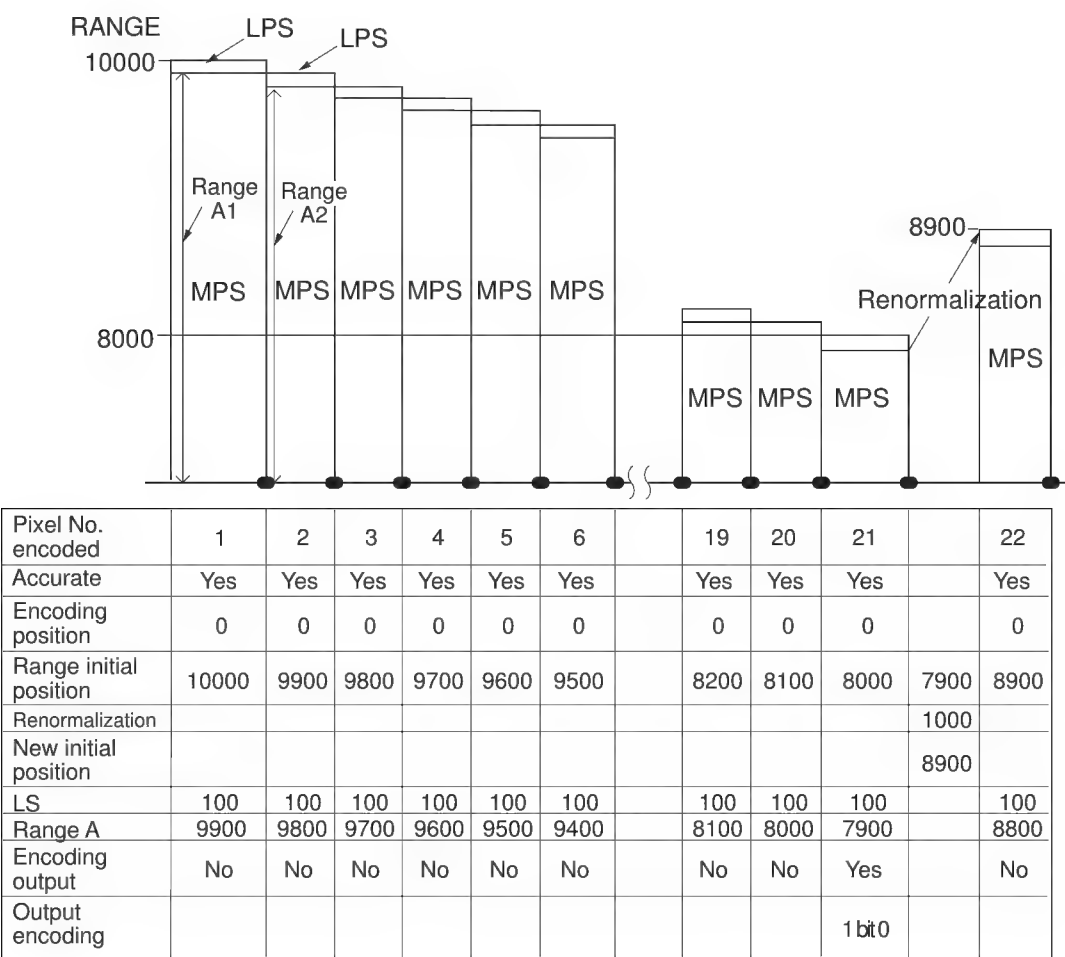


Figure 2-23 When Predictions are Continually Accurate

In this case, the encoding 1 bit is output for the first time when Range A falls becomes less than 8000 in the 21st pixel.
The following output encoding is shortened and its compression increased.

7.2.4 Construction of image data with JBIG image compression encoding

Images are encoded in block units called stripes, as shown in the figure below.

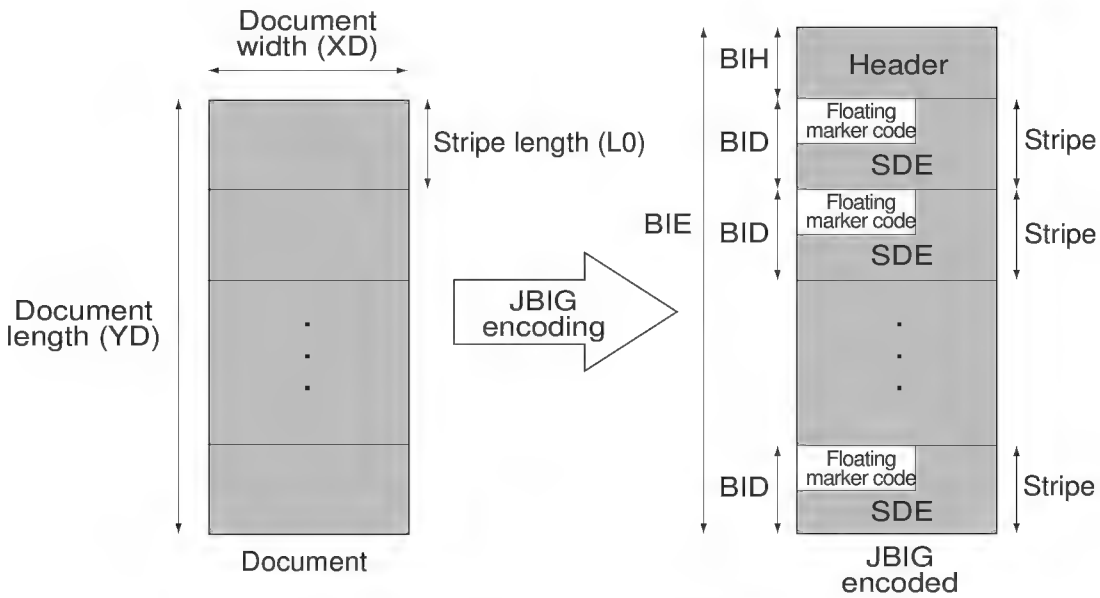


Figure 2-24 Construction of JBIG Image Data

After being encoded, the image data is referred to as BIE (Bi-level Image Entity), and is constructed from the Bi-level Image Header (BIH) section and the Bi-level Image Data (BID) section shown in the figure below.

BIE (Bi-level Image Entity)			
BIH (Bi-level Image Header)	BID (Bi-level Image Data)	BID (Bi-level Image Data)

Figure 2-25 BIE Construction Diagram

7.2.5 Explanation of bi-level image header section (BIH)

The BIH is shown in the construction figure below. It designates the image size, number of lines per stripe, model template, etc.

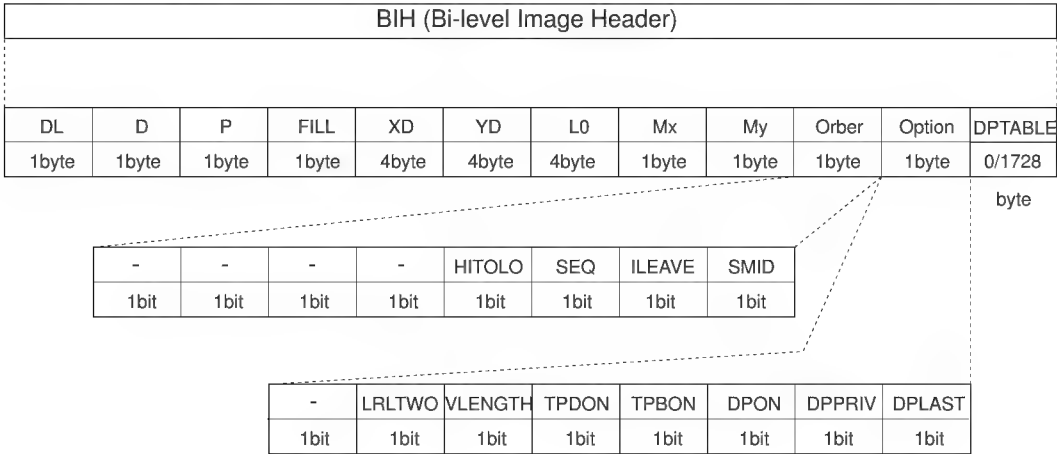


Figure 2-26 BIH Construction Diagram

7.2.6 Explanation and parameters for each symbol used in BIH

The 0x of each parameter shows that the following integers are hexadecimal.

Symbol	Meaning	Parameter	Reference
DL	Initial layer to be transmitted	0x00 fixed	
D	Number of differential layers	0x00 fixed	
P	Number of bit planes	0x00 fixed	
FILL	Fill	0x00 fixed	
XD	Horizontal image size at layer D	0XXXXXXXXX	Document width (No. of bits)
YD	Vertical image size at layer D	0XXXXXXXXX	Document length (No. of bits)
L0	Lines per stripe at the lowest resolution	0XXXXXXXXX	Basically, 1 stripe is 128 lines (0x00000080).
other lines when machine			Stripes with numbers of are possible the other can receive in option mode.
Mx	Maximum horizontal offset allowed for AT pixel	0xXX	0-127 pixels
My	Maximum vertical offset allowed for AT pixel	0x00 fixed	
Order	The order in which stripe data is attached	Upper 4 bits 0 fixed	
Option	Option	Upper 1 bit 0 fixed	
DPTABLE	Private DP table	0 or 1728 bytes	
HITOLO	Transmission order of differential layers	1 bit 0 fixed	
SEQ	Indication of progressive-compatible sequential coding	1 bit 0 fixed	
ILEAVE	Interleaved transmission order of multiple bit plane	1 bit 0 fixed	
SMID	Transmission order of stripes	1 bit 0 fixed	
LRLTWO	Number of reference lines	1 bit 0/1	0: 3 lines 0: 2 lines
VLENGTH	Indication of possible use of NEWLEN marker segment	1 bit 0/1	Use of 0: NEWLEN not allowed Use of 1: NEWLEN allowed
TPDON	Use of TP for Typical Prediction for differential layers	1 bit 0 fixed	
TPBON	Use of TP for base layer	1 bit 0/1	0: OFF 1: ON
DPON	Use of Deterministic Prediction	1 bit 0 fixed	
DPPRIV	Use of private DP table	1 bit 0 fixed	Has meaning when DPON is 1.
DPLAST	Use of last DP table	1 bit 0 fixed	Has meaning when DPON is 1.

7.2.7 Explanation of bi-level image data (BID) section

BID is as shown in the construction figure below, and consists only of the number of stripes. BID is constructed by the connection of the floating marker code and the section which includes the actual image data encoded with JBIG image compression encoding, called SDE (Stripe Data Entity).

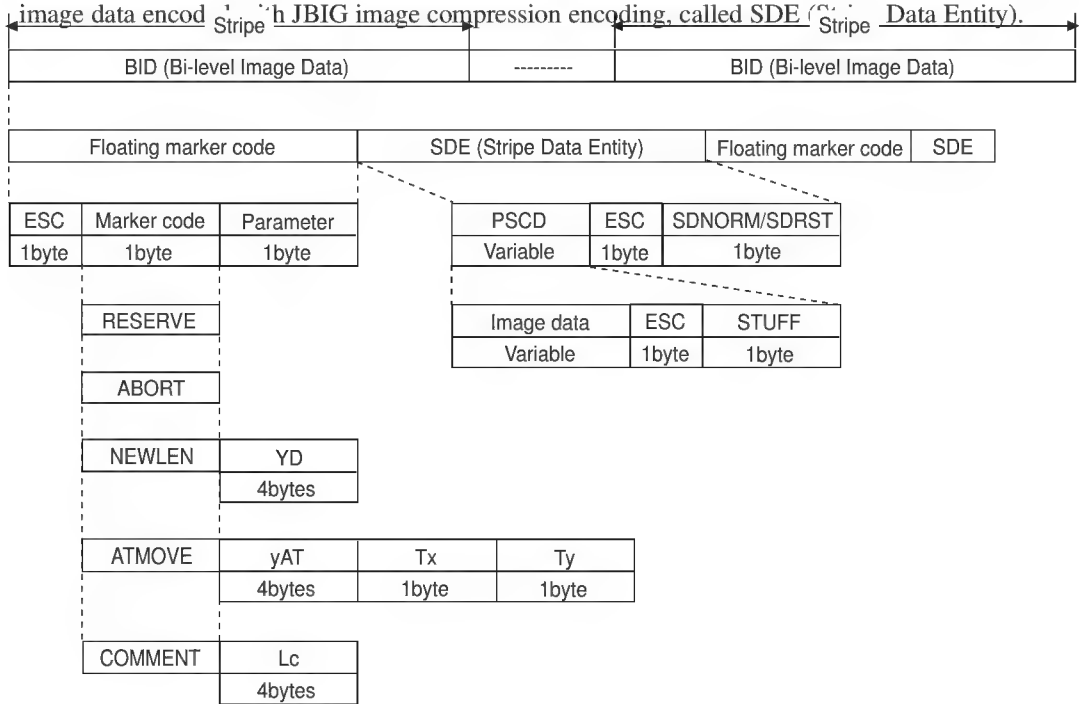


Figure 2-27 BID Construction Diagram

7.2.8 Explanation and parameters for each symbol used in BID

a) Floating marker code section

The floating marker code is set at the head of the stripe data entity (SDE). In order to distinguish the encoding and the floating marker code, it is imperative that ESC (escape code: 0xFF) be set at the head. The following marker code and parameters are in the floating marker code. The 0x of each marker code shows that the following integers are hexadecimal.

ABORT (Abort: 0x05)

Encoding interruption. Only the abort code can be made to appear anywhere.

ESC	0x05
-----	------

ATMOVE (AT move: 0x06)

Designates from which line the movement of the AT pixel starts, and where it will move to.

ESC	0x06	yAT:Movement-starting line	Tx:Movement Position(X)	Ty:Movement Position (Y)
-----	------	----------------------------	-------------------------	--------------------------

COMMENT (Private comment: 0x07)

An optional comment may be added.

ESC	0x07	Lc:Comment length
-----	------	-------------------

NEWLEN (New length: 0x04)

Redefine the document length. Only usable when VLENGTH=ON.

ESC	0x04	YD:Document length
-----	------	--------------------

RESERVE (Reserve: 0x01)

Only usable for characteristic use.

ESC	0x01
-----	------

b) Stripe data section

PSCD (Protected stripe encoding data)

The actual image data encoded with JBIG image compression is included in PSCD by the section remaining after the last 2 bytes from SDE, ESC and SDNORM or SDRST are omitted.

Image Data

The actual image data encoded with JBIG image compression.

STUFF

Image data is a variable, so STUFF:0 (zero) is adjusted by continuous sending so that the image data can be arranged into byte units or word (2 byte) units.

SDNORM (Stripe data completion: 0x02)

Shows the completion of stripe data

ESC	0x02
-----	------

SDRST (The reset at completion of stripe data: 0x03)

Shows the completion of stripe data. Everything including the study table and the ATMOVE are reset.

ESC	0x03
-----	------



NOTE

When the image data encoding is 0xFF, it is imperative to attach 0x00 after the image data encoding 0xFF in order to distinguish ESC(0xFF).

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Chapter 3

Maintenance and Service

1. MAINTENANCE LIST

1.1 Consumables

Level	Consumable	When
User	Toner cartridge (FX3)	When "REPLACE CARTRIDGE" is displayed.
Service technician	None	

1.2 Cleaning

Level	Location	When
User	Main unit outer covers	When dirty.
	Separation roller	When document separation/ feed performance falls.
	Separation guide	When document separation performance falls.
	White sheet	When copied and transmitted images are faint.
	Scanning glass (contact sensor)	When black vertical stripes appear in copied or transmitted images.
	Paper feed guide or received images.	When marks appears on back of paper in copied
Service technician	Paper pickup roller	When recording paper feed performance falls.
	Transfer charging roller	When marks on back of paper or blank spots at intervals of 1.96" (50 mm) appear in copied or received images.
	Static charge eliminator	When polka appear dots in copied or received images.
	High-voltage terminal	When copied or received images are light, dark, or completely blank.

Level	Location	When
Service technician	Fixing entrance guide	When marks on back of paper, irregular/smudged black vertical line, paper jam, wrinkles in copied or received images.
	Paper face-up eject roller	When paper jams occur during copying or receiving.
	Flapper	When paper jams occur frequently during copying or receiving.
	Document feed roller	When document feed performance falls.
	Document eject roller	When document feed performance falls.
	Pressure roller	When marks appear on back of paper at intervals of 2.48" (63 mm), or poor fixing, paper jam, or wrinkles occur during copying or receiving.
	Fixing ass'y	When marks appear at intervals of 2.95" (75 mm) or poor fixing of copied or received images occurs.
	Separation pad	When recording paper separation performance falls.

1.3 Periodic Inspection

None

1.4 Periodic Replacement Parts

Level	Location	When
User	None	
Service technician	None	

1.5 Adjustment Items

None

1.6 General Tools

Tool	Use
Phillips screwdriver	Removing/inserting screws
Flat bladed screwdriver	Removing/inserting screws
Precision flat bladed screwdriver	Removing plastic tabs
Tweezers	Removing coil spring
Pliers, needle nose	Driving retaining ring
Lint-free paper	Clean transfer charging roller, fixing film
Isopropyl alcohol	Clean fixing entrance guide, fixing eject roller, fixing eject guide, static charge eliminator, etc.

1.7 Special Tools

Tool	Use	Part No.
Grease (MOLYKOTE EM-50L)	Apply to specified parts	HY9-0007
Grease (IF-20)	Apply to specified parts	CK-8006
Grease (UNIWAY 68)	Apply to specified parts	CK-0451

2. HOW TO CLEAN PARTS

2.1 Main Unit Outer Covers

Lightly wipe the unit's outer casing with a clean, soft, lint-free cloth moistened with water or diluted dishwashing detergent solution.

2.2 Separation Roller

Wipe with a soft, dry clean cloth.

2.3 Separation Guide

Wipe with a dry clean soft cloth.

2.4 White Sheet

Wipe with a soft, dry clean soft cloth.

2.5 Scanning Glass (Contact Sensor)

Wipe with a soft, dry clean cloth.

2.6 Paper Feed Guide

Wipe with a clean, soft, dry, lint-free cloth to remove any toner or paper debris.



Do not touch the transfer changing roller during cleaning. Otherwise, the print quality may deteriorate.



If Separation roller, Separation guide and Paper pickup roller are very dirty, wipe with a cloth moistened with Isopropyl alcohol (IPA). Do not use tissue paper. Dust from the tissue paper causes static electricity.

Precautions when using Isopropyl alcohol (IPA)

When cleaning with IPA, take care to prevent the IPA from splashing high-temperature parts. If IPA splashes high-temperature parts, leave for at least three minutes to allow the IPA to evaporate.

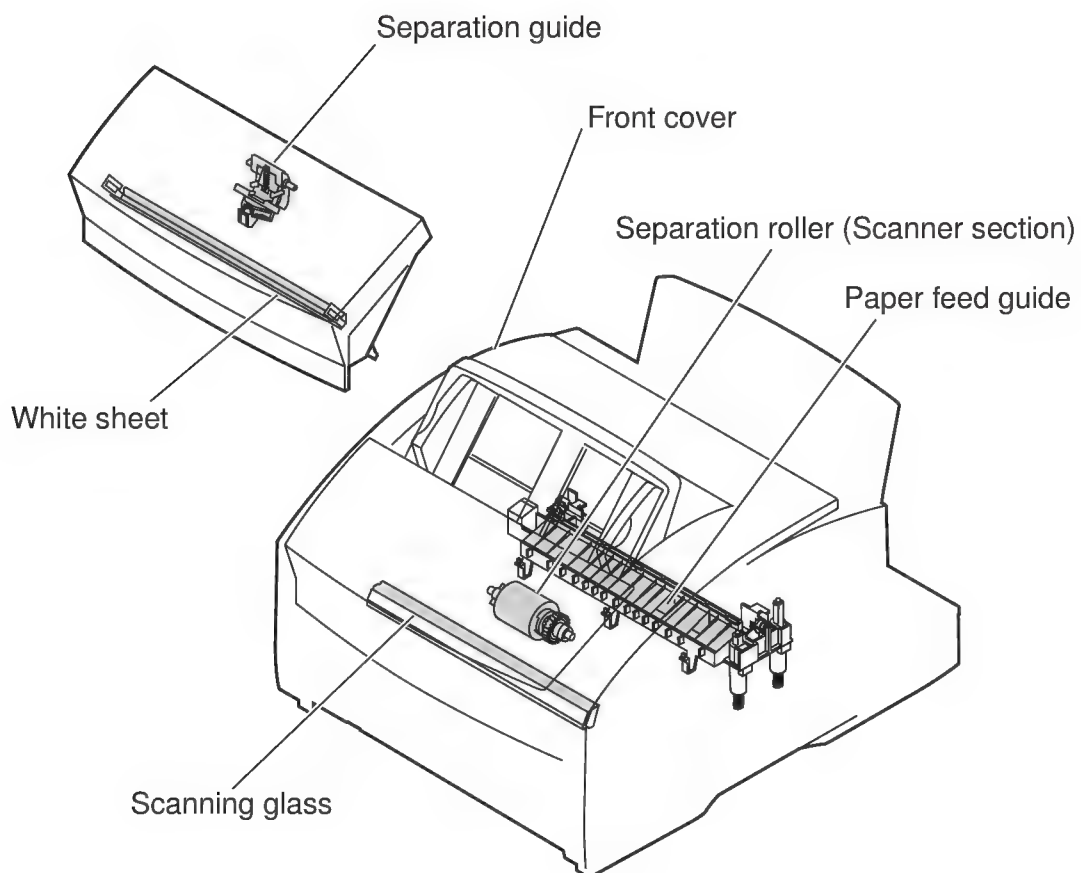


Figure 3-1 Cleaning Location 1

2.7 Paper Pickup Roller

Using lint-free paper dipped in isopropyl alcohol, wipe and dirt off the paper pickup roller.

2.8 Transfer Charging Roller

Wipe with lint-free paper and remove any toner or paper debris.



Do not touch or hold the sponge section of the transfer charging roller. Doing so can cause marks on back of paper or blank spots in copied or received images.

Never clean with solvents

Replace the charging roller if it is deformed or cannot be thoroughly cleared using lint-free paper.

2.9 Static Charge Eliminator

Wipe with a lint-free paper and remove any foreign matter, such as paper fragments.

2.10 High Voltage Terminal

Wipe with a clean, soft, dry, lint-free cloth to remove any toner or paper debris.

2.11 Fixing Entrance Guide

Wipe with a lint-free paper and remove any toner or paper debris.

2.12 Paper Face-up Eject Roller

Using lint-free paper dipped in isopropyl alcohol, wipe off the paper eject face-up roller.

2.13 Flapper

Wipe with a lint-free paper and remove any toner or paper debris.

2.14 Document Feed Roller, Document Eject Roller

Wipe with a soft, dry clean cloth.

2.15 Pressure Roller

Using lint-free paper dipped in alcohol, wipe off the pressure roller.

2.16 Fixing Ass'y

Using lint-free paper dipped in alcohol, wipe off the fixing ass'y.

2.17 Separation Pad

Using cloth dipped in isopropyl alcohol, wipe off the separation pad.

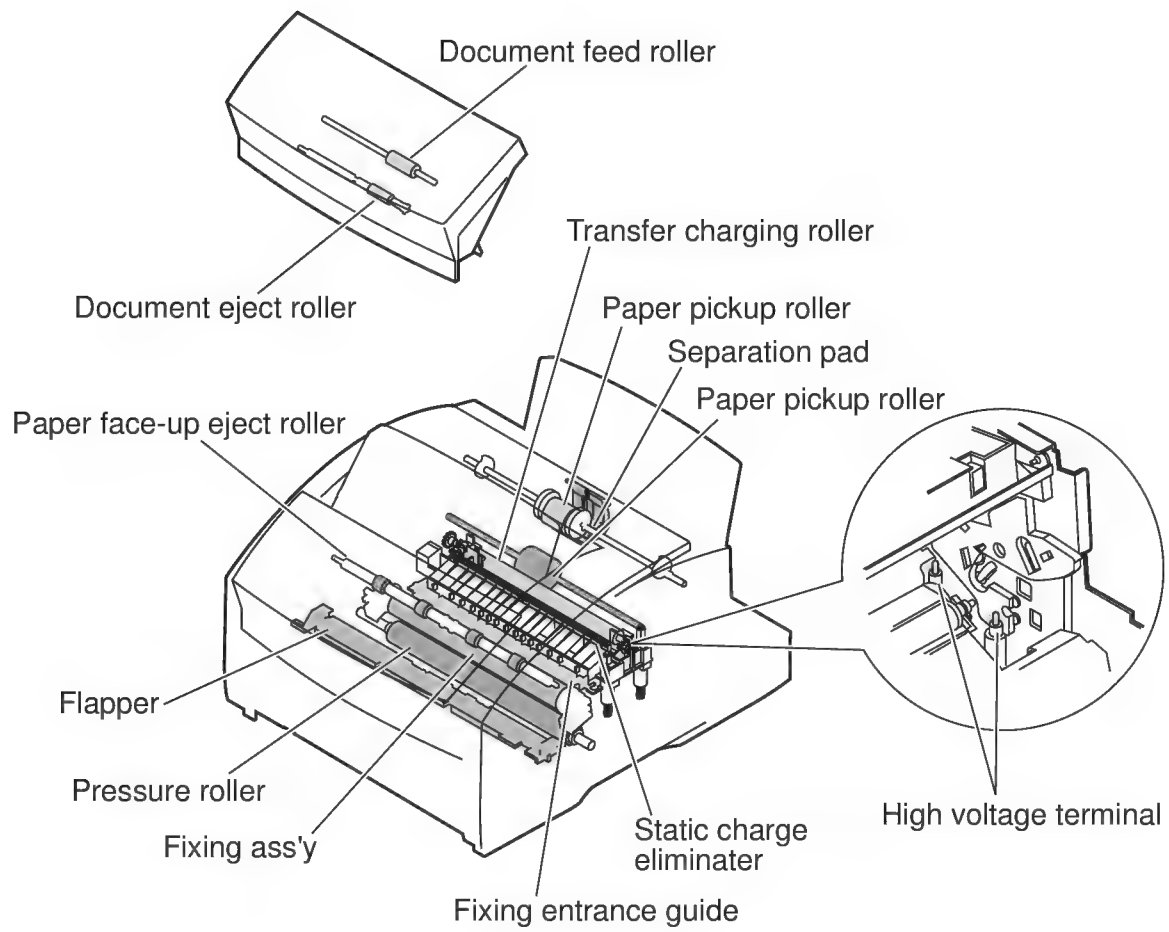


Figure 3-2 Cleaning Location 2

3. REPLACING PARTS & ADJUSTMENTS

3.1 Replacing Parts

For details on the disassembly/assembly procedure when replacing parts, refer to the Parts Catalog (separate). Illustrations in the Parts Catalog are drawn in the order in which parts are disassembled. The Parts Catalog also shows enlarged drawings or supplementary illustrations for parts requiring caution during disassembly and assembly. Particular care should be paid to the cautions contained in illustrations.

3.2 Adjustment

None

4. TROUBLESHOOTING

4.1 Troubleshooting Index

Use the troubleshooting index below to investigate the cause of a problem and refer to the specified page for countermeasures.

Problem

• General errors

- The unit does not power on. **Page 3-18**
- The display looks abnormal. **Page 3-18**
- The buttons do not work. **Page 3-18**
- No sound from the speaker **Page 3-18**

• Errors shown on the display

- User error message. **Page 3-10**
- Error codes. **Page 3-12**

• Printing problems (Evaluation criteria: Test printing is faulty.)

- The paper is not fed correctly. **Page 3-19**
 - The main motor does not run.
 - The paper is not picked up from the auto sheet feeder.
 - The paper skews.
- The printing operation is abnormal. **Page 3-19**
 - The unit indicates a paper jam when there is none.
- Poor printing quality **Page 3-20**
 - Light
 - Dark
 - Completely blank
 - All black
 - Dots
 - Marks on back of papers
 - Black vertical lines
 - Irregular and smudged black vertical lines
 - Irregular and smudged black horizontal lines
 - Marks
 - Blank spots
 - White vertical lines
 - White horizontal lines
 - Faulty registration
 - Distortion/BD signal failure
 - Partially compressed/stretched image
 - Poor fixing

• **Scanning problems (Evaluation criteria: Test printing is good, but the copied image is poor.)**

- The document is not fed.
 - The document feed motor does not run.
 - The document slips against the rollers.
 - The document does not separate.
 - The scanner unit's sensors are defective
- The scanning image is abnormal.
 - Nothing is printed.
 - The image has vertical stripes.
 - The image has thick vertical stripes.

Page 3-25

Page 3-26

4.2 Errors Shown on the Display
4.2.1 User error message

Look for the applicable error message and implement the appropriate countermeasures.

"BUSY/NO SIGNAL" (#005/#018)

- | | |
|------------------|--|
| Cause: | The receiving fax did not answer within 55 seconds. (T0 time over) |
| Solution: | Contact the other party and have them check their fax. You can try to send the document manually. For an overseas call, add pauses to the registered number. |
| Cause: | The touch tone/rotary pulse setting on your fax is incorrect. |
| Solution: | Set your fax to the setting that matches your telephone line. |
| Cause: | The other party is not using a G3 machine. |
| Solution: | Contact the other party and have them send or receive the document using a G3 machine. |
| Cause: | The other party's fax is not working. |
| Solution: | Contact the other party and have them check their fax. |
| Cause: | The telephone number you dialed is busy. |
| Solution: | Try sending the document at a later time. |

"CHECK DOCUMENT" (#001)

- | | |
|------------------|---|
| Cause: | Document jam. This is displayed when the document sensor detects paper, but the document edge sensor cannot detect the leading edge of the document with 15 seconds from the start of the feed operation. |
| Solution: | Clear the document jam. |

"CHECK PAPER SIZE"

- | | |
|------------------|--|
| Cause: | The size of the paper loaded in the paper tray is different from the paper size set by the user data menu. |
| Solution: | Set the correct paper size in the user data setting. |

"CHECK PRINTER" (##322~##324, #335)

Check the displayed error code and see the measure to eliminate the error. (See Page 3-17.)

"DATA ERROR"

- | | |
|------------------|--|
| Cause: | The registration data in the SRAM was destroyed and a checksum error occurred due to a dead lithium battery or SRAM failure. |
| Solution: | (1) Press the <i>Set</i> button, and turn the power off and on again.
(2) Replace the lithium battery.
(3) Replace the SCNT board. |

"DOC. TOO LONG" (#003)

- Cause:** The document is longer than 39.4"(1m).
Solution: Use a copy machine to make a reduced copy of the document, then send again.
Cause: It took more than 32 minutes to send, copy, a document or receive a document.
Solution: Divide the document and send or copy each part separately. Contact the other party and have them divide the document and send each part separately.

"HANG UP PHONE"

- Cause:** The handset or the extension telephone is off the hook.
Solution: Put the handset or the extension telephone back on the hook.

"MEMORY FULL" (#037)

- Cause:** The fax's memory is full because it has received too many documents.
Solution: (1) Print out any documents which are stored in memory. Then start the operation again.
(2) If the memory contains any facsimiles you don't need, delete them.
Cause: The fax's memory is full because you tried to send too many pages at once.
Solution: Divide the document and send each part separately.

"NO ANSWER" (#005)

- Cause:** The receiving fax machine does not answer.
Solution: Make sure you dialed the correct number. Try again later.

"NO RX PAPER" (#012)

- Cause:** The receiving fax machine declares no paper in DIS, or its memory is full.
Solution: Contact the other party, and ask them to put paper in their machine, or to clear their fax machine's memory.

"NO TEL #" (#022)

- Cause:** The button you pressed has no number registered for One-Touch Speed Dialing, Coded Speed Dialing, or Group Dialing.
Solution: Print a list of registered numbers and make any corrections needed, then try again.

"NOT AVAILABLE NOW"

- Cause:** One-touch or coded speed dial already registered.
Solution: Check the contents of the one-touch or coded speed dialing registration, then try again.

"CLEAR PAPER JAM" (#009)

- Cause:** Paper jam.
Solution: Clear the paper jam.

"REPLACE CARTRIDGE"

- Cause:** The toner cartridge has run out of toner.
Solution: Replace the toner cartridge.

"START AGAIN"	
Cause:	An error occurred on the phone line or in the system.
Solution:	Start the procedure again from the beginning.
"LOAD PAPER"	
Cause:	The fax is out of paper.
Solution:	Add more paper to the paper tray.
"CHECK COVER/CART"	
Cause:	The toner cartridge is not installed properly.
Solution:	Make sure the toner cartridge is installed properly.
Cause:	Front cover is not closed.
Solution:	Close front cover.

4.2.2 Error codes

a) Service error code output

When service data #1 SSSW SW01 bit 0 is set to "1", then service error codes are printed on the activity management reports, reception result reports and error transmission reports when communication is terminated due to an error. Also, the following is displayed when an error occurs.

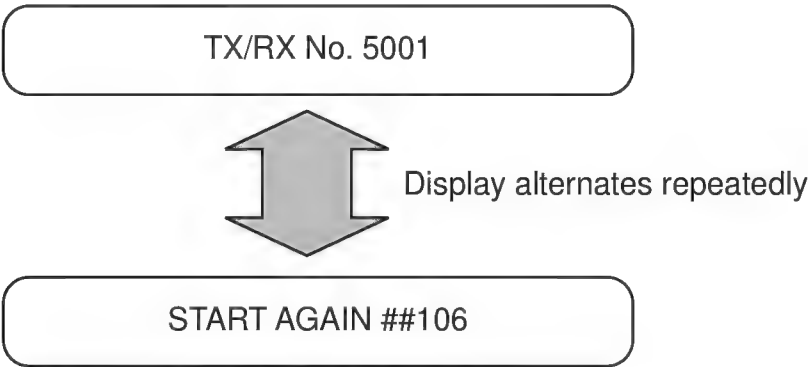


Figure 3-3 Service Error Code Display

b) Error code countermeasures

The following item c) lists all the error codes which the unit can display. The separate *G3 Facsimile Error Code List (Rev. 1)* does not specify the countermeasures for resolvable error codes. Also refer to this list when an error code appears.

The *G3 Facsimile Error Code List (Rev. 1)* does not specify countermeasures for all error codes. The countermeasures that are specified in the *G3 Facsimile Error Code List (Rev. 1)* are included here as specific countermeasures for your reference.

• **Increase the transmission level**

Increase service data **#2 MENU** Parameter No.07 toward 0 (dBm).

• **Decrease the transmission level**

Decrease service data **#2 MENU** Parameter No.07 toward -15 (dBm).

• **Echo measures**

Change the following bit switches of service data **#1 SSSW SW03**.

Bit 4:1 Ignore the first DIS signal sent by the other fax machine.

0 Do not ignore the first DIS signal sent by the other fax machine.

Bit 5:1 Transmit a tonal signal (1850 or 1650 Hz) when the other fax machine sends a DIS signal.

0 Do not transmit a tonal signal when the other fax machine sends a DIS signal.

Bit 6:1 Transmit a 1650-Hz tonal signal when bit 5 is 1.

0 Transmit a 1850-Hz tonal signal when bit 5 is 1.

Bit 7:1 Transmit a tonal signal before sending a CED signal.

0 Do not transmit a tonal signal before sending a CED signal.

• **EPT (Echo Protect Tone)**

Change service data **#1 SSSW SW03** bit 1.

Bit 1:1 Transmit an echo protect tone.

0 Do not transmit an echo protect tone.

• **Adjust NL equalizer.**

Set service data **#2 MENU** Parameter No.05 to "ON".

• **Reduce the transmission start speed.**

Reduce the transmission speed by changing "TX START SPEED" setting.

• **Loosen the TCF judgment standard.**

Not available for this fax.

• **Loosen the RTN transmission conditions.**

Change service data **#3 NUMERIC Param.** Parameters No.02 to 04.

No.02 Percentage of errors in all lines : Set close to 99%.

No.03 Number of lines of burst condition : Set close to 99 lines.

No.04 Number of burst line groups : Set close to 99 groups.

• **Increase the no-sound time after CFR reception.**

Change service data **#1 SSSW SW04** bit 4 to "1".

Bit 4: 1 Time when the low-speed signal is ignored after sending a CFR signal: 1500 ms

0 Time when the low-speed signal is ignored after sending a CFR signal: 700 ms

c) ERROR CODE LIST for FAX-L350

The error codes used for this fax are as follows.

Codes listed as “New” in the list below indicate new error codes, or codes whose measures differ from those listed in the separate document *G3 Facsimile Error Code List (Rev.1)*.

For recovery methods for error codes indicated as “New”, see the item *d) Recovery methods for codes indicated as “New” in this chapter, 5.2.2 Error codes*.

For items other than “New”, see the separate document *G3 Facsimile Error Code List (Rev.1)*.

• User error code

No.	Tx or Rx	Definition
#001	[TX]	Paper Jam
#003	[TX/RX]	Copy Page, Communication Time Over
#005	[TX/RX]	Initial ID (T1) Time Over
#009	[RX]	Recording Paper Jam or Out of Paper
#011	[RX]	Polling Error
#012	[TX]	Other party Out of Paper
#018	[TX/RX]	Automatic Dialing Error
#021	[RX]	DCN during Polling Rx
#022	[TX]	Call Failure
#037	[RX]	Image Memory Full
#039	[TX]	Closed Network Tx Failure
#995	[TX/RX]	Memory Communication reservation cancellation

• Service error code

No.	Tx or Rx	Definition
##100	[TX]	Excessive Repeat Protocol during Rx
##101	[TX/RX]	Modem Speed Different from Other Party
##102	[TX]	Fall Back Failure during Tx
##103	[RX]	Fail to Detect EOL for 5 Seconds (15 seconds for CBT) during Rx
##104	[TX]	RTN or PIN Received during Tx
##106	[RX]	Fail to Receive Protocol for 6 Seconds when Waiting for Protocol during Rx
##107	[RX]	Fall Back Failure on Tx Side during Rx
##109	[TX]	Receive Signals Other than DIS, DTC, FTT, CFR or CRP after DCS Tx and Exceed the Number of Protocol re-transmissions during Tx
##111	[TX/RX]	Memory error
##114	[RX]	RTN Transmission during Reception
##116	[TX/RX]	Detect Loop Current Disconnection during Communication
##200	[RX]	Fail to Detect Picture Rx Carrier for 5 Seconds during Rx
##201	[TX/RX]	DCN received Other than Normal Binary Protocol
##204	[TX]	Receive DTC without Tx Data
##220	[TX/RX]	System Error (main program runaway)
##224	[TX/RX]	Abnormal Protocol during G3 Communication
##226	[TX/RX]	Stack Pointer Not within RAM Range
##229	[RX]	Recording Unit Locked for 1 Minute
##232	[TX]	ENCODE Control Unit Malfunction
##237	[RX]	DECODE Control Unit Malfunction
##238	[RX]	PRINT Control Unit Malfunction
##261	[TX/RX]	System Error between Modem and SCNT
##280	[TX]	Excessive Repeat Protocol Command during Tx
##281	[TX]	Excessive Repeat Protocol Command during Tx
##282	[TX]	Excessive Repeat Protocol during Tx
##283	[TX]	Excessive Repeat Protocol during Tx

No.	Tx or Rx	Definition
##284	[TX]	DCN Reception after TCF Transmission
##285	[TX]	DCN Reception after EOP Transmission
##286	[TX]	DCN Reception after EOM Transmission
##287	[TX]	DCN Reception after MPS Transmission
##288	[TX]	Receive Signals Other than PIN, PIP, MCF, RTP or RTN after EOP Transmission
##289	[TX]	Receive Signals Other than PIN, PIP, MCF, RTP or RTN after EOM Transmission
##290	[TX]	Receive Signals Other than PIN, PIP, MCF, RTP or RTN after MPS Transmission
##322	[RX]	Printer (LBP) Fixing Unit Trouble
##323	[RX]	Printer (LBP) BD (Beam Detect) Trouble
##324	[RX]	Printer (LBP) Scanner Trouble
##670	[TX]	At V.8 late start, the called party declares the V.8 protocol in DIS signal and this unit transmits a CI signal, but the protocol does not progress and a T1 time-out occurs.
##671	[RX]	At V.8 termination, the protocol did not advance to phase 2 and a T1 time-out occurs after the caller CM signal was detected.
##672	[TX]	The protocol did not move from phase 2 to phase 3 and a T1 time-out occurred during V.34 transmission.
##673	[RX]	The protocol did not move from phase 2 to phase 3 and a T1 time-out occurred during V.34 reception.
##674	[TX]	The protocol did not move from phase 3 to phase 4 and a T1 time-out occurred during V.34 transmission.
##675	[RX]	The protocol did not move from phase 3 to phase 4 and a T1 time-out occurred during V.34 reception.
##750	[TX]	Exceed Repeat Protocol Due to Failure to Receive Significant Signals after Transmitting PPS-NULL during ECM Tx
##752	[TX]	Receive DCN after PPS-NULL Transmission during ECM Tx
##753	[TX]	Exceed Protocol Retransmission Limit or T5 Time (60 seconds) after PPS-NULL Transmission during ECM Tx
##754	[TX]	Exceed Retransmit Protocol after PPS-NULL Transmission during ECM Tx
##755	[TX]	Exceed Protocol Retransmission Limit Due to Failure to Receive Significant Signals after PPS-MPS Transmission during ECM Tx
##757	[TX]	Receive DCN after PPS-MPS Transmission during ECM Tx
##758	[TX]	Exceed Protocol Retransmission Limit or T5 Time (60 seconds) after PPS-MPS Transmission during ECM Tx
##759	[TX]	Exceed Retransmit Protocol after PPS-MPS Transmission during ECM Tx
##760	[TX]	Exceed Protocol Retransmission Limit Due to Failure to Receive Significant Signals after PPS-EOM Transmission during ECM Tx
##762	[TX]	Receive DCN after PPS-EOM Transmission during ECM Tx
##763	[TX]	Exceed Protocol Retransmission Limit or T5 Time (60 seconds) after PPS-MPS Transmission during ECM Tx
##764	[TX]	Exceed Retransmit Protocol after PPS-EOP Transmission during ECM Tx
##765	[TX]	Exceed Protocol Retransmission Limit Due to Failure to Receive Significant Signals after PPS-EOP Transmission during ECM Tx
##767	[TX]	Receive DCN after PPS-EOP Transmission during ECM Tx

No.	Tx or Rx	Definition
##768	[TX]	Exceed Protocol Retransmission Limit or T5 Time (60 seconds) after PPS-EOP Transmission during ECM Tx
##769	[TX]	Exceed Retransmit Protocol after PPS-EOP Transmission during ECM Tx
##770	[TX]	Exceed Repeat Protocol Limit Due to Failure to Receive Significant Signals after Transmitting EOR-NULL during ECM Tx
##772	[TX]	Receive DCN after EOR-NULL Transmission during ECM Tx
##773	[TX]	Exceed Protocol Retransmission Limit or T5 Time (60 seconds) after EOR-NULL Transmission during ECM Tx
##774	[TX]	Receive ERR after EOR-NULL Transmission during ECM Tx
##775	[TX]	Exceed Protocol Retransmission Limit Due to Failure to Receive Significant Signals after EOR-MPS Transmission during ECM Tx
##777	[TX]	Receive DCN after EOR-MPS Transmission during ECM Tx
##778	[TX]	Exceed Protocol Retransmission Limit or T5 Time (60 seconds) after EOR-MPS Transmission during ECM Tx
##779	[TX]	Receive ERR after EOR-MPS Transmission during ECM Tx
##780	[TX]	Exceed Protocol Retransmission Limit Due to Failure to Receive Significant Signals after EOR-EOM Transmission during ECM Tx
##782	[TX]	Receive DCN after EOR-EOM Transmission during ECM Tx
##783	[TX]	Exceed Protocol Retransmission Limit or T5 Time (60 seconds) after EOR-EOM Transmission during ECM Tx
##784	[TX]	Receive ERR after EOR-EOM Transmission during ECM Tx
##785	[TX]	Exceed Protocol Retransmission Limit Due to Failure to Receive Significant Signals after EOR-EOP Transmission during ECM Tx
##787	[TX]	Receive DCN after EOR-EOP Transmission during ECM Tx
##788	[TX]	Exceed Protocol Retransmission Limit or T5 Time (60 seconds) after EOR-EOP Transmission during ECM Tx
##789	[TX]	Receive ERR after EOR-EOP Transmission during ECM Tx
##790	[RX]	Transmit ERR after EOR-Q Reception during ECM Rx
##791	[TX/RX]	Receive Non-Significant Signals during ECM Mode Procedures
##792	[RX]	Fail to Detect PPS-NULL between Partial Pages during ECM Rx
##793	[RX]	Time Over Due to Failure to Receive Valid Frame during High Speed Signal Rx upon ECM Rx
##794	[TX]	Receive All 0 PPR during ECM Tx
##795	[TX/RX]	Trouble in the decoding processing during communication

d) New error codes and recovery methods

There is no new error code in this model.

Note, however, the following supplementary information, as the machine requires different actions than the existing models to correct:

##322 [TX/RX] Fixing heater temperature abnormality

Cause: Internal unit defect.

- Solutions:**
- (1) Check the connections between the fixing ass'y and the PCNT board (J2) and between the fixing ass'y and the power supply unit (J102).
 - (2) Check the connection between the PCNT board (J403) and the power supply unit (J202).
 - (3) Check the resistance between connector pins of the fixing ass'y.
J203-12 and J203-13: 790 to 212 k Ω (at 10 ~ 35°C)
J102-1 and J102-2: 120.9 to 139.1 Ω (at 25°C)
If either resistance is incorrect, replace the fixing ass'y.
 - (4) Check the voltage at J102 of the power supply unit (with the heater cable TB1 removed); if it is not the same as the AC input voltage, replace the power supply unit.
 - (5) Replace the PCNT board.
 - (6) Replace the SCNT board.

##323 [TX/RX] LASER/scanner section BD signal output abnormal

Cause: Internal unit defect (Low LASER intensity)

- Solutions:**
- (1) Check the connection between the LASER/scanner section (J801) and the SCNT board (J502).
 - (2) Replace the LASER/scanner section.
 - (3) Replace the SCNT board.

Cause: Internal unit defect (BD signal timing error)

- Solutions:**
- (1) Check the connection between the LASER/scanner section (J801) and the SCNT board (J502).
 - (2) Replace the LASER/scanner section.
 - (3) Replace the SCNT board.

##324 [TX/RX] Printer section scanner motor rotation rate abnormal

Cause: Internal unit defect (Incorrect scanner motor speed)

- Solutions:**
- (1) Check the connection between the LASER/scanner section (J1) and the SCNT board (J502).
 - (2) Replace the LASER/scanner section.
 - (3) Replace the SCNT board.

##335 [TX/RX] Data communication error between system control section and printer control section

Cause: Internal unit defect

- Solutions:**
- (1) Check the connections between the PCNT board (J1) and the SCNT board (J3) and between the SCNT board (J2) and power supply unit (J201).
 - (2) Replace the SCNT board.
 - (3) Replace the PCNT board.
 - (4) Replace the power supply unit.

4.3 Errors not Shown on the Display

4.3.1 General errors

- **The unit does not power on. (Evaluation criteria: Look at the actual unit.)**

- (1) Check the power cord connection.
- (2) Check the connection between the SCNT board (J2) and power supply unit (J201).
- (3) Check the power supply unit's fuse (FU101).
- (4) Replace the power supply unit.

- **Abnormal display. (Applicable test mode: Operation panel test)**

Nothing is displayed.

- (1) Check the connection between the operation panel unit and SCNT board (J406).
- (2) Replace the operation panel unit.
- (3) Replace the SCNT board.

Part of the LCD panel does not display anything.

- (1) Check for LCD problems with the test mode.
- (2) Check the connection between the operation panel unit and SCNT board (J406).
- (3) Replace the operation panel unit. (Faulty LCD)
- (4) Replace the SCNT board.

- **The buttons do not work. (Applicable test mode: Operation panel test)**

- (1) If the test mode can be used, check for faulty buttons.
- (2) Check the connection between the operation panel unit and SCNT board (J406).
- (3) Replace the operation panel unit.
- (4) Replace the SCNT board.

- **No sound from the speaker**

- (1) Check the connection of the speaker and SCNT board (J7).
- (2) Replace the speaker.
- (3) Replace the SCNT board.

4.3.2 Printing problems

- **Faulty printing (Evaluation criteria: Test print is faulty.)**
- **The paper is not fed correctly. (Evaluation criteria: Look at the actual unit.)**

The main motor does not run.

- (1) Check the voltage (+12 V) at both terminals of C501 located on the MCNT board.
- (2) Check the main motor's resistance. 1.62 ~ 1.98 Ω /1 phase is normal. (Fig. 3-4)
- (3) Replace the main motor.
- (4) Replace the SCNT board.
- (5) Replace the MCNT board.

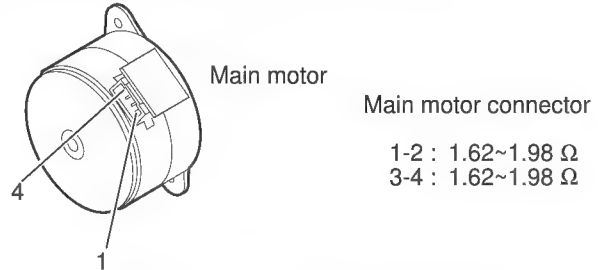


Figure 3-4 Main Motor Connector

The paper is not picked up from the auto sheet feeder/cassette.

- (1) Check whether the recommended paper is used.
- (2) Check whether more than 100 sheets (0.39" (10 mm)) or less of paper have been loaded in the auto sheet feeder, be sure that the curling, if any, appreciable.
- (3) Check whether more than 250 sheets (1.08" (27.5 mm)) or less of paper have been loaded in the cassette.
- (4) Check whether the paper has been loaded into the sheet feeder correctly.
- (5) Check the connection between the paper pickup solenoid and the MCNT board (J501/J508).
- (6) Replace the paper pickup solenoid.
- (7) Clean the separation pad.
- (8) Replace the separation pad.
- (9) Replace the separation pad spring or the lifting spring.
- (10) Replace the SCNT board.

The paper skews.

- (1) Check whether the recommended paper is used.
- (2) Check whether more than 100 sheets (0.39" (10 mm)) or less of paper have been loaded in the auto sheet feeder, be sure that the curling, if any, appreciable.
- (3) Check whether more than 250 sheets (1.08" (27.5 mm)) or less of paper have been loaded in the cassette.
- (4) Check whether the paper has been loaded into the sheet feeder correctly.
- (5) Check whether dust or paper debris have built up inside the auto sheet feeder.
- (6) Check whether the paper pickup roller, or any other rollers, are damaged or scratched.

- **The printing operation is abnormal.**

The unit indicates there is a paper jam when there is no paper jam.

- (1) Check the connection from the paper edge sensor to the SCNT board (J507).
- (2) Check whether the paper edge sensor and actuator and the paper eject sensor actuator are in their correct positions.
- (3) In test mode check whether the paper edge sensor and the paper eject sensor are operating correctly.
- (4) Check the connection between the main motor and the SCNT board (J507).
- (5) Replace the main motor.
- (6) Replace the SCNT board.

• **Poor printing quality (Evaluation criteria: Check the test print image's faults.)**

Before checking for the cause of print defects, check whether the user uses Canon-recommended paper and stores it correctly. If the problem is solved by using the recommended paper, the customer should be advised to use the recommended paper and store it correctly.



Light



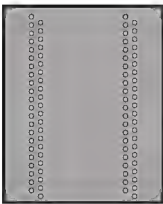
Dark



Completely blank



All black



Dots



Marks on
back of paper



Black vertical
lines



Irregular and smudged
black vertical lines



Irregular and
smudged black
horizontal lines



Marks



Blank spots



White vertical
lines



White horizontal lines



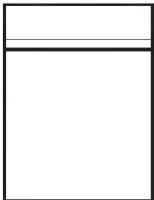
Faulty
registratio



Poor fixing



Distortion
nBD failure



Partially compressed/stretched image



Figure 3-5 Faulty Print Samples

• **Light**

-
- Solutions:**
- (1) Remove the toner cartridge and shake it lightly five or six times.
 - (2) Verify that user setting **"ECONOMY PRT"** is not **"ON"**.
 - (3) Replace the toner cartridge.
 - (4) Open the front cover during printing, and remove the toner cartridge. Open the cartridge drum cover shutter manually, and check whether the toner image on the photosensitive drum is transferred onto the paper. If it is transferred, go to item (7). If not, go the following step.
 - (5) Clean the transfer bias contact and the transfer charging roller shaft contact.
 - (6) Replace the transfer charging roller.
 - (7) Clean the developing bias contact and the toner cartridge contact.
 - (8) Replace the PCNT board.
 - (9) Replace the LASER/scanner section.
 - (10) Replace the SCNT board.

• **Dark**

-
- Solutions:**
- (1) Verify that user setting **"ECONOMY PRT"** is not **"OFF"**.
 - (2) Clean the drum ground contact and the toner cartridge contact
 - (3) Clean the primary charging contact and the toner cartridge contact.
 - (4) Replace the LASER/scanner section.
 - (5) Replace the SCNT board.

• **Completely blank**

-
- Solutions:**
- (1) Clean the developing bias contact and the toner cartridge contact.
 - (2) Check whether the projection for opening and closing the LASER shutter on the toner cartridge is damaged.
 - (3) Check the voltage connector (MCNT : J503/J5, SCNT : J501/J3) for the high-voltage power circuit.
 - (4) Replace the PCNT board.
 - (5) Replace the LASER/scanner section.
 - (6) Replace the SCNT board.

• **All black**

-
- Solutions:**
- (1) Replace the toner cartridge.
 - (2) Clean the primary charging contact and the toner cartridge contact.
 - (3) Replace the PCNT board.
 - (4) Replace the LASER/scanner section.
 - (5) Replace the SCNT board.

• **Dots**

-
- Solutions:**
- (1) Clean the static charge eliminator in the toner transfer section.
 - (2) Check the static charge eliminator contact.
 - (3) Clean the transfer charging roller.
 - (4) Replace the transfer charging roller.

• **Marks on back of paper**

- Solutions:**
- (1) Copy a few white paper documents.
 - (2) If the marks are at intervals of approx. 50mm (1.96"), clean the transfer charging roller, but if they are at intervals of approx. 63mm (2.48"), clean the pressure roller.
 - (3) Clean the paper feed guide and fixing entrance guide.
 - (4) Replace the transfer charging roller.
 - (5) Replace the pressure roller.

• **Black vertical lines**

- Solutions:**
- (1) Open the front cover during printing, and remove the toner cartridge. Open the cartridge drum cover shutter manually, and check whether there are black vertical lines on the photosensitive drum. If there are black lines, replace the toner cartridge. If not, go the following step.
 - (2) Clean the face-down eject roller.
 - (3) Clean the fixing entrance guide.
 - (4) Replace the fixing ass'y.

• **Irregular and smudged black vertical lines**

- Solutions:**
- (1) Clean the fixing entrance guide.
 - (2) Replace the toner cartridge.

• **Irregular and smudged black horizontal lines**

- Solutions:** If the irregular smudged black lines occur cyclically, replace the toner cartridge. If they are non-cyclical, replace the fixing ass'y.

• **Marks**

- Solutions:**
- (1) If the marks are at intervals of approx. 50mm (1.96"), clean the transfer charging roller; if they are at intervals of approx. 75mm (2.95"), clean the fixing ass'y; and if they are at intervals of approx. 75mm (2.95"), or 38mm (1.5"), replace the toner cartridge.
 - (2) Clean the paper feed guide.
 - (3) Clean the fixing entrance guide.

• **Blank spots**

- Solutions:**
- (1) Clean the transfer charging roller.
 - (2) Replace the transfer charging roller.
 - (3) Replace the toner cartridge.
 - (4) Check for foreign matter between the transfer charging roller gear and the drive gear.
 - (5) Clean the developing bias contact and the toner cartridge contact.
 - (6) Replace the PCNT board.
 - (7) Replace the SCNT board.

• White vertical lines

- Solutions:**
- (1) Remove the toner cartridge and shake it lightly five or six times.
 - (2) Open the toner cartridge drum shutter and if there are vertical white lines on the photosensitive drum, replace the toner cartridge.
 - (3) Check for foreign matter stuck in the LASER output hole on the LASER/scanner section or the LASER input hole on the toner cartridge.
 - (4) Clean the face-up eject roller.
 - (5) Clean the fixing entrance guide.
 - (6) Replace the fixing ass'y.
 - (7) Replace the LASER/scanner section.

• White horizontal lines

- Solutions:**
- (1) Replace the toner cartridge.
 - (2) Replace the fixing ass'y.

• Faulty registration

- Solutions:**
- (1) Check if more than the regulation amount of paper is loaded in the sheet feeder.
 - (2) Clean the paper pickup roller.
 - (3) Replace the paper pickup roller.
 - (4) Check whether the paper edge sensor actuator is damaged or deformed.
 - (5) Replace the pickup solenoid.
 - (6) Replace the paper edge sensor.
 - (7) Replace the SCNT board.

• Distortion/BD signal failure

- Solutions:**
- (1) Check the connection between the LASER/scanner section and SCNT board (J502) connector connections.
 - (2) Replace the LASER/scanner section.
 - (3) Replace the SCNT board.

• Partially compressed/stretched image

- Solutions:**
- (1) Check for foreign matter between the toner cartridge gear and the drive gear.
 - (2) Check if the toner cartridge gear is broken.
 - (3) Replace the toner cartridge.

• Poor fixing

- Solutions:**
- (1) If the marks are at intervals of approx. 75mm (2.95"), clean the fixing ass'y; if they are at intervals of approx. 63mm (2.48"), clean the pressure roller.
 - (2) Replace the fixing ass'y.
 - (3) Replace the pressure roller.
 - (4) See the next page, and check the nip width of the fixing section. If it is not as specified, replace the fixing pressure plate.

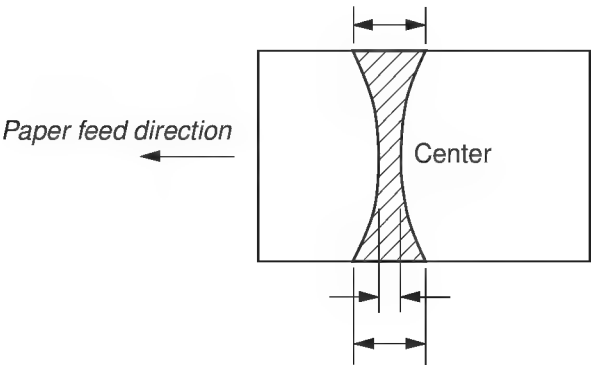


Checking the fixing nip width

Improperly set fixing nip may cause a fixing ass’y problem. The fixing ass’y is not designed to allow adjustment of the nip.

Check the fixing ass’y nip by using the following procedure.

- (1) Either take along one or two all-black copies of A4 or letter size made with a copier, or make one using a copier at the customer site.
- (2) Set the black copy in the sheet feeder with the black side facing up.
- (3) Change the paper delivery selector to the face-up delivery slot.
- (4) Enter the test mode and run **[3] PRINT, [6] ENDURANCE**.
- (5) Turn the power off when the beginning of the paper appears in the face-up delivery slot. Turn the power off, wait for 10 seconds, and remove the paper from the face-up delivery slot slowly.
- (6) Measure the widths of the areas on the paper where toner luster is visible and check whether they fall within the range shown in below table.



	Dimension
b	3.0 to 5.0 mm (0.12" to 0.20")
a - c	0.5 mm (0.02") or less
a - b	1.0 mm (0.04") or less
b - c	1.0 mm (0.04") or less

Figure 3-6 Fixing Nip Width

4.3.3 Scanning problems

- **Faulty scanning (Evaluation criteria: Test print is good, but the copied image is poor.)**
- **The document is not fed.**

The document feed motor does not run. (Evaluation criteria: Check it visually.)

- (1) Check the voltage (+12 V) at both terminals of C501 located on the MCNT board.
- (2) Check the connection between the document feed motor and the SCNT board (J406).
- (3) Check the document feed motor's resistance. 5.6 ~ 6.8 Ω /1 phase is normal. (Fig. 3- V)7)
- (4) Replace the document feed motor.
- (5) Replace the SCNT board.

The document slips against the rollers. (Evaluation criteria: Check it visually. Stretched copy image.)

- (1) See *page 3-4* and clean the document reading section.
- (2) Replace the reading section's rollers.

The document does not separate. (Evaluation criteria: Check it visually.)

- (1) Check whether the document feed motor is driving all the rollers. (Check for any damaged gears or foreign matter stuck inside.)
- (2) Check whether the document feed lever is set to manual document feed.
- (3) See *page 3-4* and clean the separation roller and separation guide.
- (4) Replace the separation roller and separation guide.

The scanner unit's sensors are defective (Evaluation criteria: The placed document or transported document is not detected.)

- (1) Check for any faulty sensors while executing the copying operation and test mode.
- (2) Check the connection between the operation panel unit and the SCNT board (J406).
- (3) Replace operation panel unit.
- (4) Replace the SCNT board.



Document feed motor connector

1-2 : 5.6~6.8 Ω
3-4 : 5.6~6.8 Ω

Figure 3-7 Document Feed Motor Connector

- **The reading image is abnormal. (Evaluation criteria: Check the copy image's faults.)**

Nothing is printed.

- (1) Check the connection between the contact sensor and SCNT board (J1).
- (2) Replace the contact sensor unit.
- (3) Replace the SCNT board.

The image has vertical stripes.

- (1) Clean the contact sensor's scanning glass.
- (2) Check the connection between the contact sensor and SCNT board (J1).
- (3) Replace the contact sensor unit.

The image has thick vertical stripes.

- (1) Clean the contact sensor's scanning glass.
- (2) Check the connection between the contact sensor and SCNT board (J1).
- (3) Replace the contact sensor unit.

5. SERVICE SWITCHES

5.1 Hardware Switches

There is a slide switch on the NCU board that must be set for each country.

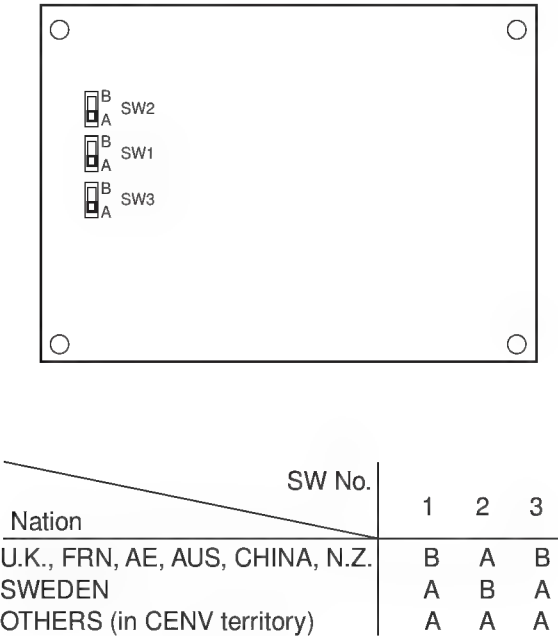


Figure 3-8 Slide Switch Location on NCU and Switch Settings

5.2 Service Data Settings

Service data can be checked and changed with items on display menus. The default values of the SSSW/parameters available in this fax machine are shown in *this Chapter, 5.2.3 Service data settings* in this manual. The SSSW/parameters given in the previous product-specific manual are explained in the *G3 Facsimile Service Data Handbook*. The new switches for this model are described in *this Chapter, 5.2.3 Service data settings*.

5.2.1 Service data overview

The service data menu items are divided into the following ten blocks.

#1 SSSW (Service Soft Switch settings)

These setting items are for basic fax service functions such as error management, echo countermeasures, and communication trouble countermeasures.

#2 MENU (MENU switch settings)

These setting items are for functions required during installation, such as NL equalizer and transmission levels.

#3 NUMERIC Param. (NUMERIC parameter settings)

These setting items are for inputting numeric parameters such as the various conditions for the FAX/TEL switching function.

#4 NCU (NCU settings)

These setting items are for telephone network control functions such as the selection signal transmission conditions and the detection conditions, for the control signals sent from the exchange.

#5 TYPE (TYPE setting)

The type setting makes the service data conform to a specific nation's communications standards.

#6 GENESIS (UHQ function setting)

These setting items are for scanned image processing functions such as edge enhancement and error diffusion processing.

#7 PRINTER (PRINTER function settings)

These setting items are for basic printer service functions such as the reception picture reduction conditions. Also there is an item for resetting the printer section without switching the power off-on.

#8 CLEAR (data initialization mode)

Various data are initialized by selecting one of these setting items. There is a setting item for checking/inputting the total number of pages printed and total number of pages scanned by this fax.

#9 ROM (ROM management)

ROM data such as the version number and checksum are displayed.

5.2.2 Service data registration/setting method

Service data can be registered and set by the following operations:

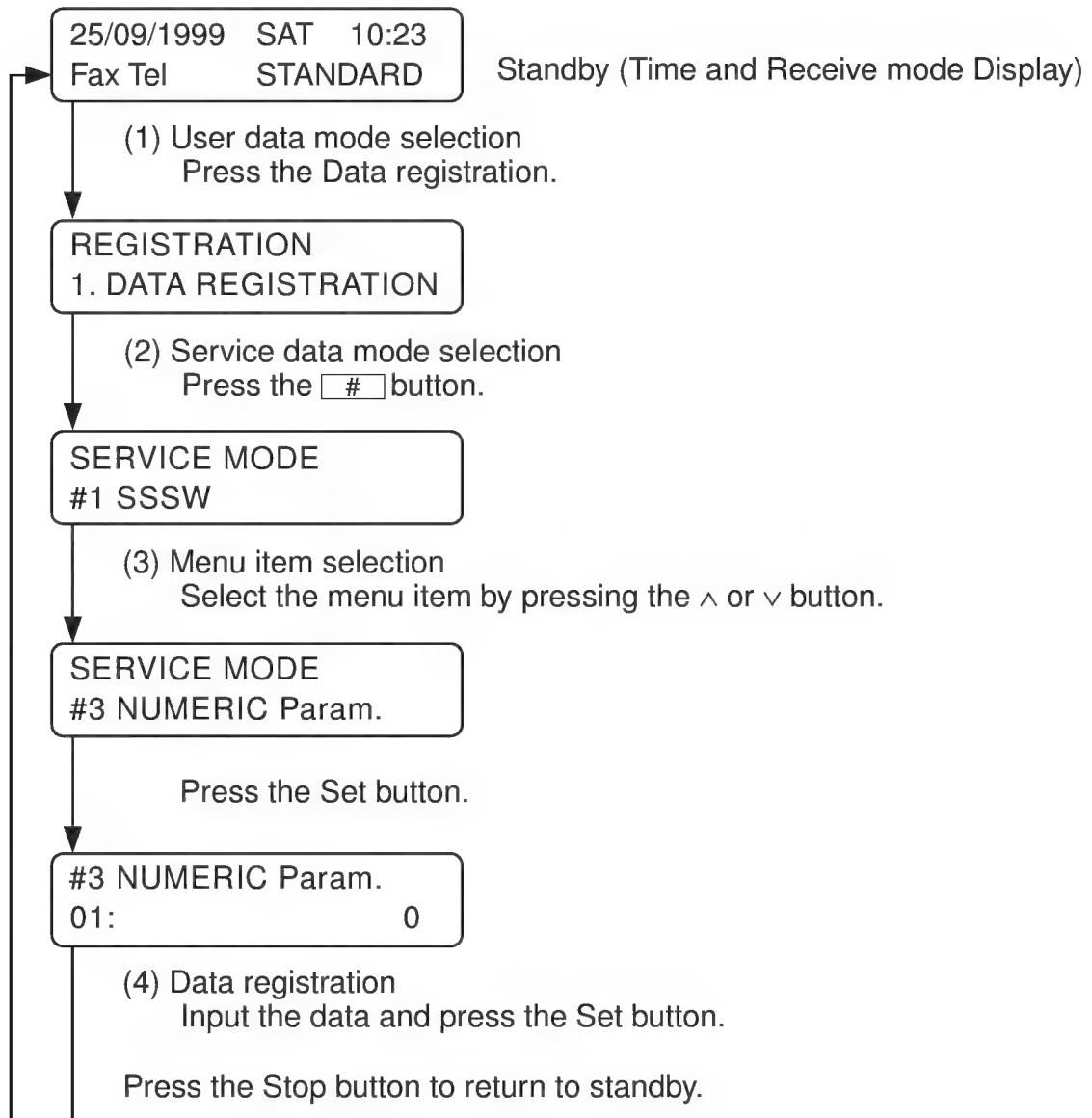


Figure 3-9 Service Data Setting Method



When using service mode, detach the telephone line from the main unit. Proper reception cannot be guaranteed when using service mode.

5.2.3 Service data settings

Service data

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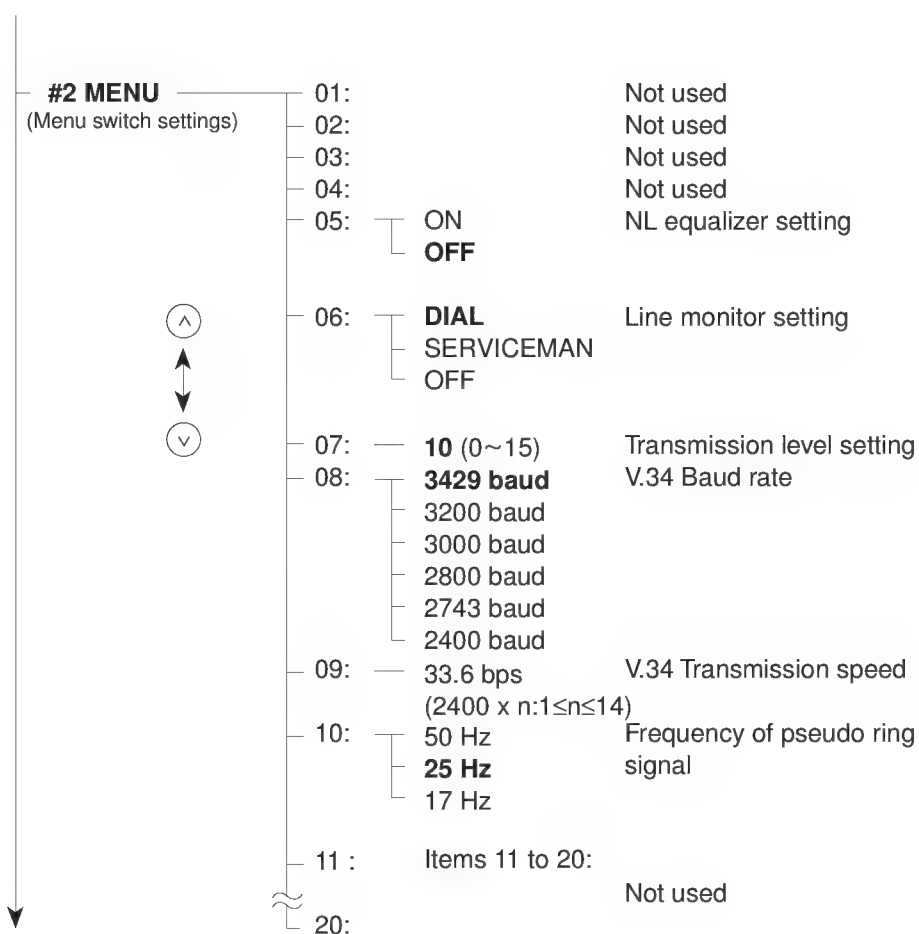
⌵

	Bit	7	6	5	4	3	2	1	0	
#1 SSSW (Service soft switch setting)	SW01	0	0	—	1	0	—	0	0	Error management
	SW02	—	—	—	—	—	—	—	0	Memory clear list output setting
	SW03	0	0	0	0	—	—	0	—	Echo solution setting
	SW04	1	0	0	0	0	0	0	0	Communication trouble solution settings
	SW05	—	—	0	0	0	—	—	—	Standard function (DIS signal) setting
	SW06	—	—	0	—	—	—	0	0	Scan condition settings
	SW07	—	—	—	—	—	—	—	—	Not used
	SW08	—	—	—	—	—	—	—	—	Not used
	SW09	—	—	—	—	—	—	0	0	Communications result display function settings
	SW10	—	—	—	—	—	—	—	—	Not used
	SW11	—	—	—	—	—	—	—	—	Not used
	SW12	0	—	0	0	0	0	1	0	Page timer settings
	SW13	—	—	—	—	—	—	—	—	Not used
	SW14	—	—	—	—	—	—	—	—	Not used
	SW15	—	0	—	—	—	—	—	—	Dial inn FAX/TEL switching function setting
	SW16	—	—	—	—	—	—	—	—	Not used
	SW17	—	—	—	—	—	—	—	—	Not used
	SW18	—	—	—	—	—	—	0	0	Communication trouble solutions settings (2)
	SW19	—	—	—	—	—	—	—	—	Not used
	SW20	—	—	—	—	—	—	—	—	Copy function settings
	SW21	—	—	—	—	—	—	—	—	Not used
	SW22	—	—	—	—	0	—	—	—	Field Requests/Troubleshooting Issues
	SW23	—	—	—	—	—	—	—	—	Not used
	SW24	—	—	—	—	—	—	—	—	Not used
	SW25	—	—	—	—	—	—	0	0	Report display function settings
	SW26	0	0	—	—	0	—	—	0	Transmission function settings
	SW27	—	—	—	—	—	—	—	—	Not used
	SW28	—	—	0	0	0	0	0	0	V.8/V.34 protocol settings
	SW29	—	—	—	—	—	—	—	—	Not used
	SW30	—	—	—	—	—	—	—	—	Not used

Figure 3-10 Service Data (page 1)



The switches marked “—” are not used. Do not change their settings.



Figures in boldface indicate the default setting.

Figure 3-11 Service Data (page 2)



No. 01 to 04, 11 to 20 are not used. Do not change their settings.

#3 NUMERIC Param. (Numeric parameter settings)			
	Default	Range	
01:	0		Not used
02: —	10 (10%)	(1~99)	RTN signal transmission condition (1)
03: —	15 (15 lines)	(2~99)	RTN signal transmission condition (2)
04: —	12 (12 times)	(1~99)	RTN signal transmission condition (3)
05:	4		Pause time for NCC (before the ID code)
06:	4		Pause time for NCC (after the ID code)
07:	350 (3500 ms)	(0~9999)	Prepause time for outgoing calls
08:	0		Not used
09: —	6 (6 digits)	(1~20)	The number of digits in telephone number compared against TSI signal to be matched for restricted receiving function
10: —	5500 (55 seconds)	(0~9999)	Line connection detection time (T0 timer)
11: —	3500 (35 seconds)	(0~9999)	T1 timer (Rx)
12:	0		Not used
13: —	1310 (13.1 seconds)	(0~9999)	Maximum time to receive oneline of image data
14:	0		Not used
15: —	120 (1200 ms)	(0~999)	Hooking detection time
16: —	4 (4 seconds)	(0~9)	Pseudo RBT transmission from CML on time until start
17: —	100 (1000 ms)	(0~999)	Pseudo RBT signal pattern: On time
18: —	0 (0 ms)	(0~999)	Pseudo RBT signal pattern: Off time (short)
19: —	400 (4000 ms)	(0~999)	Pseudo RBT signal pattern: Off time (long)
20: —	100 (1000 ms)	(0~999)	Pseudo ring pattern: On time setting
21: —	0 (0ms)	(0~999)	Pseudo ring pattern: Off time (short)
22: —	400 (4000 ms)	(0~999)	Pseudo ring pattern: Off time (long)
23: —	44		Not used
24: —	10	(0~20)	Pseudo-RBT signal transmission level
25: —	60 (600 s)	(0~999)	Answering machine connection function signal detection level
26: —	44		Not used
27:	0		Not used
28:	0		Not used
29:	0		Not used
30:	0		Not used

Figure 3-12 Service Data (page 3)



No. 01, 08, 12, 14, 23, and 26 to 30 are not used. Do not change their settings.

**NOTE****#3 NUMERIC PARAM. (Numeric parameter settings)**

The relationship between the settings and the detection levels is as follows:

Parameter 24

0: Not used	1: Not used	2: Not used	3: Not used	4: Not used
5: 0 dBm	6: -1 dBm	7: -2 dBm	8: -3 dBm	9: -4 dBm
10: -5 dBm	11: -6 dBm	12: -7 dBm	13: -8 dBm	14: -9 dBm
15: -10 dBm	16: -11 dBm	17: -12 dBm	18: -13 dBm	19: -14 dBm
20: -15 dBm				

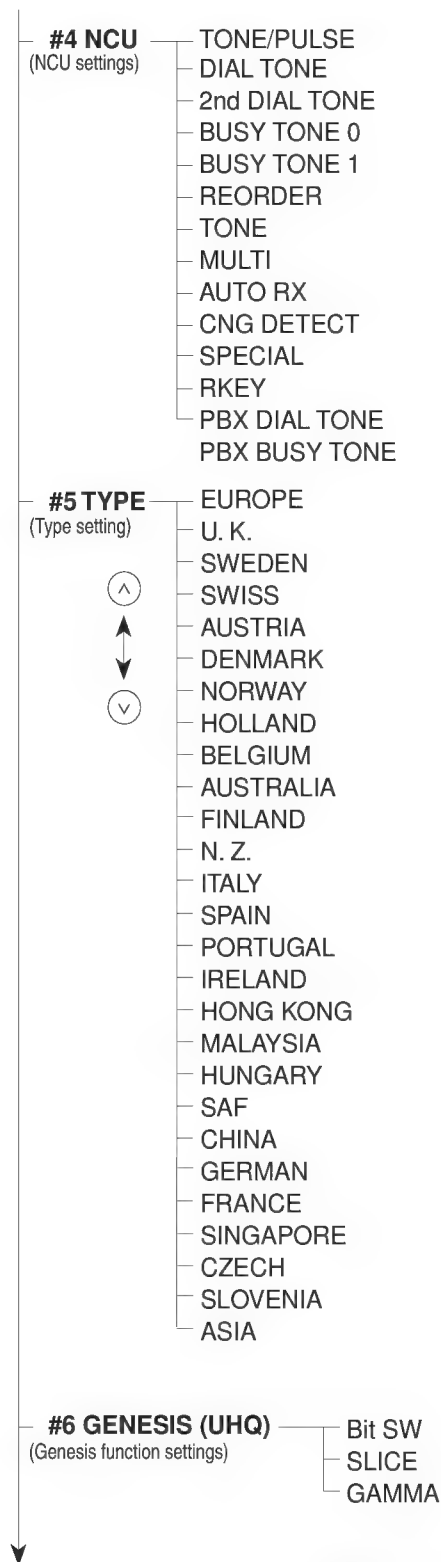


Figure 3-13 Service Data (page 4)



#4 NCU (NCU settings)

The values of these items are all set to match a specific nation’s communications standards by the #5 TYPE setting.

#6 GENESIS (UHQ function settings)

Tampering with this setting may cause the scanned image quality to deteriorate. Do not change these settings.

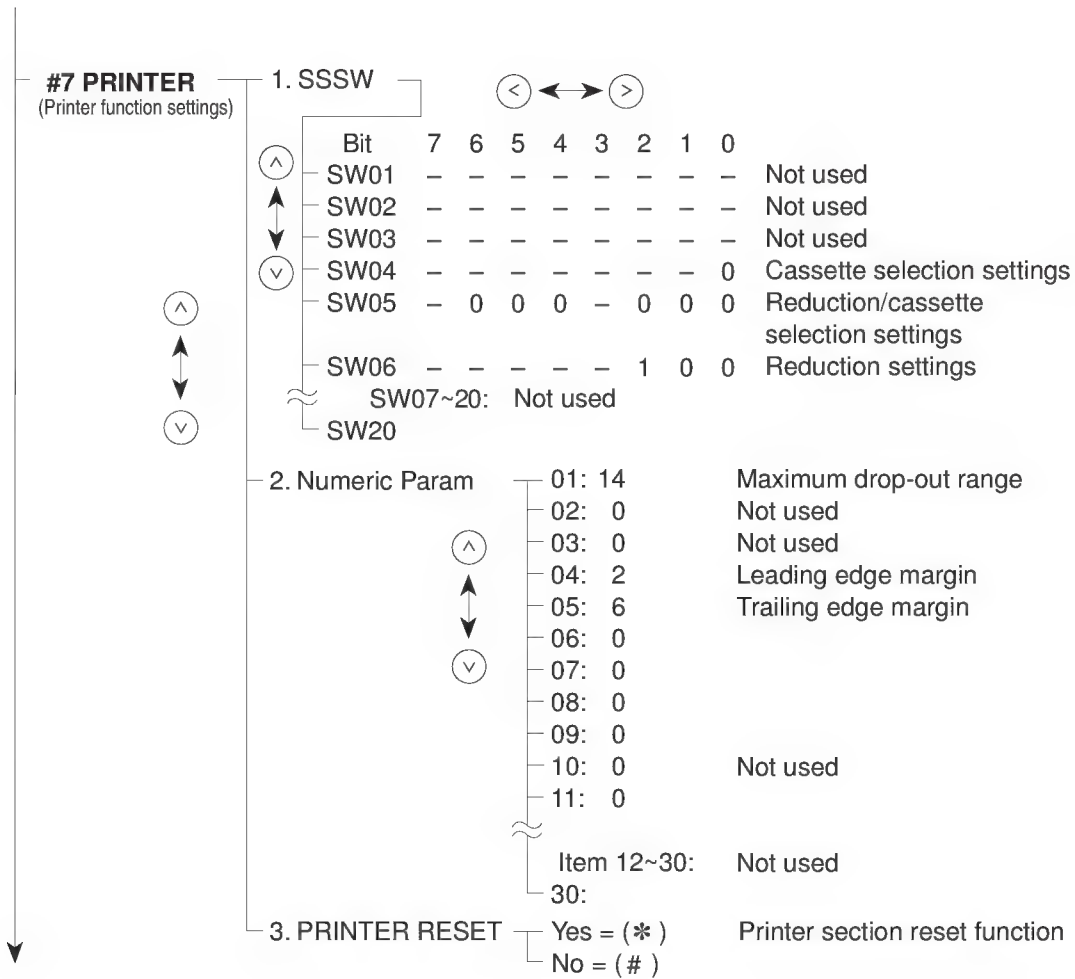


Figure 3-14 Service Data (page 5)

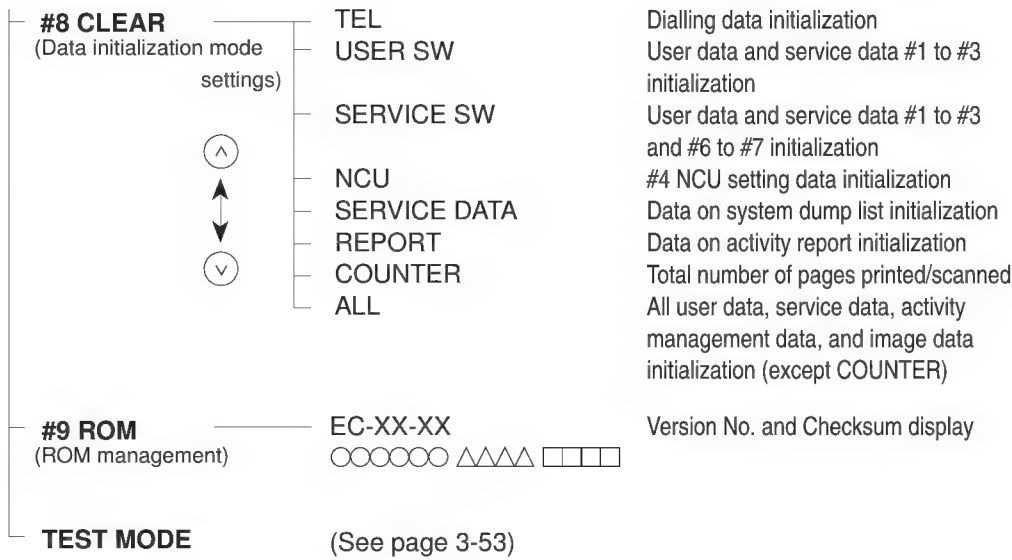
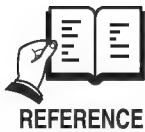


Figure 3-15 Service Data (page 6)



For details on test mode, see 6.1 Service Test Functions on page 3-53.

5.2.4 Explanation of service data

a) SSSW (Service Soft Switch settings)

The items registered and set by each of these switches comprise 8-bit switches. The figure below shows which numbers are assigned to which bits. Each bit has a value of either 0 or 1.

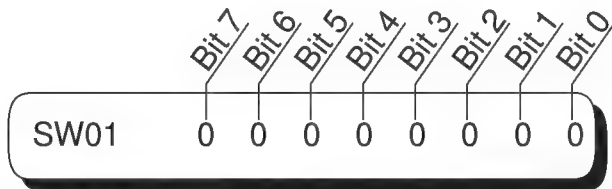


Figure 3-16 Bit Switch Display

See the chart in the service data shown in *this Chapter, 5.2.3 Service data settings* to see effective bits and their default values. With the exception of new switches added to this model the meanings (functions) of the bits are not described in this manual except the new switches added to this model. See *the G3 Facsimile Service Data Handbook* (supplied separately) for details of the switches.

Below are examples showing how to read bit switch tables.

Bit	Function	Indicates that the setting is "1".		Indicates that the setting is "0".	
		1		0	
0	Service error code	Output		Not Output	
1	Error dump list	Output		Not Output	
2	Not used				
3	Copy function	No		Yes	
4	##300 series service error code	Output		Not Output	
5	Not used				
6	Date & Time setting restriction	Setting possible		Setting restricted	
7	User setting restriction	Setting possible		Setting restricted	

Figures in boldface are default settings.

Figure 3-17 How to Read Bit Switch Tables

5.2.5 New SSSWs/parameters added to this model

#1 SSSW (service soft switch setting)

SW01 (service soft switch 01: error management)

Bit	Function	1	0
0	Service error code	Output	Not output
1	Error dump list	Output	Not output
2	Not used		
3	Copy function	No	Yes
4 (New)	##300 series service error code	Output	Not output
5	Not used		
6	Data & Time setting restriction	Setting possible	Setting restricted
7	User setting restriction	Setting possible	Setting restricted

[Bit 4]

Even when Bit0 is set to “**NOT OUTPUT**”, you can select whether or not to output ##300 series Service Error Codes, caused by hardware malfunction.

When “**OUTPUT**” is selected, ##300 series Service Error Codes are displayed and included in reports.

When “**NOT OUTPUT**” is selected, no Service Error Codes are displayed.

#1 SSSW (service soft switch setting)

SW05 (service soft switch 05: standard function <DIS signal> settings)

Bit	Function	1	0
0	Not used		
1	Not used		
2	Not used		
3	Send DIS signal bits 33 and over	No	Yes
4	Recording paper length availability A4 size declared in DIS signal		Arbitrary size
5 (New)	Declare LTR/LGL in DIS signal	No	Yes
6	Not used		
7	Not used		

[Bit 5]

Select whether to declare LTR or LGL in DIS signal when the LTR or LGL recording paper is used.

The recording paper is selected according to the setting of #7 printer SW04 bit 0.

#1 SSSW (service soft switch setting)

SW15 (service soft switch 15: Dial inn FAX/TEL switching function setting)

Bit	Function	1	0
0	Not used		
1	Not used		
2	Not used		
3	Not used		
4	Not used		
5	Not used		
6 (New)	Detect continuous signal at FAX/TEL switching	Yes	No
7	Not used		

[Bit 6]

You may enable or disable detection of ROT continuous signal for FAX/TEL switching.

Normally, only ROT intermittent signals are detected for FAX/TEL switching. If you need to detect both in view of exchange specifications, select “1” to enable detection.

#1 SSSW (service soft switch setting)

SW18 (service soft switch 18: communication trouble solutions settings (2))

Bit	Function	1	0
0 (New)	Detection of carrier disconnection between the DCS signal and the TCF signal	Detect	Do not detect
1 (New)	Waiting time for carrier disconnection between the DCS signal and the TCF signal	600 ms	300 ms
2	Not used		
3	Not used		
4	Not used		
5	Not used		
6	Not used		
7	Not used		

[Bit 0]

It is possible to select whether or not to detect carrier disconnection between the DCS signal and the TCF signal during reception.

If the receiving machine returns an FTT signal while the other machine (PC-FAX) is transmitting a TCF signal and a reception error occurs, set this bit to "1".

If an error still occurs, set #1 SSSW SW18 Bit to "1".

[Bit 1]

It is possible to select the detection time for carrier disconnection between the DCS signal and TCF signal during reception.

This bit is available for use when #1 SSSW SW18 Bit 0 is set to "1".

#1 SSSW (service soft switch setting)

SW22 (service soft switch 22: Field Requests/Troubleshooting Issues)

Bit	Function	1	0
0	Not used		
1	Not used		
2	Not used		
3 (New)	Prohibit manual polling	Yes	No
4	Not used		
5	Not used		
6	Not used		
7	Not used		

[Bit 3]

You may disable polling initiated by manual operation (off hook + start).

#1 SSSW (service soft switch setting)

SW26 (service soft switch 26: Transmission function settings)

Bit	Function	1	0
0	Compulsory direct transmission	Set	Not set
1	Not used		
2	Not used		
3 (New)	Prohibit broadcast	Yes	No
4	Not used		
5	Not used		
6	When STOP key is pressed during a sequential broadcasting	Only cancel communication	Cancel all communication
7	Error transmission report when transmission is stopped	Not output	Output

[Bit 3]

You may disable selection of multiple addresses to prevent broadcasting by mistake (on the part of the user); however, this setting will not affect broadcasting by group dialing.

#1 SSSW (service soft switch setting)**SW28 (service soft switch 28: V.8/V.34 protocol settings)**

Bit	Function	1	0
0 (New)	Caller V.8 protocol	No	Yes
1 (New)	Called party V.8 protocol	No	Yes
2 (New)	Caller V.8 protocol late start	No	Yes
3 (New)	Called party V.8 protocol late start	No	Yes
4 (New)	V.34 reception fallback	Prohibited	Not prohibited
5 (New)	V.34 transmission fallback	Prohibited	Not prohibited
6	Not used		
7	Not used		

[Bit 0]

Select whether to use the V.8 protocol when calling. If No is selected, the V.8 protocol is inhibited at calling and the V.21 protocol is used.

[Bit 1]

Select whether to use the V.8 protocol when calling. If No is selected, the V.8 protocol is inhibited when called and the V.21 protocol is used.

[Bit 2]

If ANSam signal is not received during transmission, select whether to use the V.8 protocol when the other fax machine declares the V.8 protocol in DIS signal. If No is selected, the CI signal is not transmitted and the V.8 protocol is not used even if the DIS that specifies the V.8 protocol is received.

The V.8 late start is not executed during manual transmission regardless of this setting.

[Bit 3]

Select whether to declare the V.8 protocol in DIS signal for reception. If No is selected, the V.8 protocol cannot be used because it is not declared in DIS signal.

The V.8 late start is not executed during manual reception regardless of this setting.

[Bit 4]

Select whether the receiver falls back V.34 reception. If Prohibited is selected, the receiver does not fall back.

[Bit 5]

Select whether the transmitter falls back V.34 transmission. If Prohibited is selected, the transmitter does not fallback.

#2 MENU

No.	Function	Selecting range	Default setting
08	V.34 max. baud rate	2400 ~ 3429	3429 (3429 baud)
09	V.34 max. transmission speed	24 ~ 33.6	33.6 (33600 bps)

[No. 08]

Select the maximum baud rate for V.34 transmission: 3429, 3200, 3000, 2800, 2743, and 2400.

[No. 09]

Select the maximum transmission speed for V.34 transmission: 2400 to 33600 bps.
($2400 \times n$: $1 \leq n \leq 14$).

**NOTE**

This model cannot use 2800 baud due to its modem specification. If it is set to 2800 baud, the maximum baud rate is 2743 baud.

#3 NUMERIC PARAM. (numeric parameter settings)

No.	Function	Selecting range	Default setting
07	Prepause time for outgoing calls	0-9999	350 (3500 ms)
10	T0 Timer	0-9999	5500 (55 second)
11	T1 Timer (Rx)	0-9999	3500 (35 second)
13	Maximum time to receive one line of image data	500-3000	1300 (13 second)

[No. 7]

When an automatic outgoing call is made, it is possible to set the time from when the circuit is closed until the outgoing call is made.

Adjust this parameter if an external outgoing call cannot be made via the private branch exchange.

[No. 10]

The "wait time after transmission of a dialing signal ends until a significant signal is detected in transmission" was formerly designated as T1 timer with parameter 10.

However, ITU-T recommends that it should be designated as T0 timer, so parameter 10 has been renamed to T0 timer and the default time-out time has been changed from 35 to 55 seconds.

**NOTE**

The T1 timer for the transmitter (wait time after a significant CED or V21 flag significant signal is detected until the next significant signal is detected) is fixed at 35 seconds.

[No. 11]

Set the T1 timer for the receiver (wait time after DIS transmission starts until a significant signal is received.)

If frequent errors occur during reception (2 instances) because of line connection conditions, raise the value of this parameter.

[No. 13]

Set the maximum time to receive one line of image data when image data is received.

If the other party is a computer fax and the time to receive one line of image data is long, raise the value of this parameter to increase the maximum reception time.

#7 PRINTER

service soft switch setting

SW04 (switch 04: reduction/cassette selection settings)

Bit	Function	1	0
0 (New)	When LTR/LGL specification is received by DCS, the cassette is selected according to the specification	No	Yes
1	Not used		
2	Not used		
3	Not used		
4	Not used		
5	Not used		
6	Not used		
7	Not used		

[Bit 0]

Selects whether or not the recording paper is selected according to the DCS specification when the other fax machine specifies LTR or LGL in DCS signal during reception. If it is 0, the specified recording paper is used regardless of the paper length. If it is 1, the receiving station selects the recording paper. This switch is valid when #1 SW05 bit 5 is 0.

SSSW Default Setting

TYPE	EUROPE	U.K.	SWEDEN	SWISS	AUSTRIA	DENMARK
#1 SSSW						
SW01	00010000	00010000	00010000	00010000	00010000	00010000
SW02	00000000	00000000	00000000	00000000	00000000	00000000
SW03	00000000	00000000	00000000	00000000	00000000	00000000
SW04	10000000	10000000	10000010	10000010	10000010	10000000
SW05	00000000	00000000	00000000	00000000	00000000	00000000
SW06	10000000	10000000	10000000	10000000	10000000	10000000
SW07	00000000	00000000	00000000	00000000	00000000	00000000
SW08	00000000	00000000	00000000	00000000	00000000	00000000
SW09	00000000	00000000	00000000	00000000	00000000	00000000
SW10	00000000	00000000	00000000	00000000	00000000	00000000
SW11	00000000	00000000	00000000	00000000	00000000	00000000
SW12	00000010	00000010	00000010	00000010	00000010	00000010
SW13	00000000	00000000	00000000	00000000	00000000	00000000
SW14	00000000	00000000	00000000	00000000	00000000	00000000
SW15	00000000	01000000	00000000	00000000	00000000	00000000
SW16	00000011	00000011	00000011	00000011	00000011	00000011
SW17	00000000	00000000	00000000	00000000	00000000	00000000
SW18	00000000	00000000	00000000	00000000	00000000	00000000
SW19	00000000	00000000	00000000	00000000	00000000	00000000
SW20	00000000	00000000	00000000	00000000	00000000	00000000
SW21	00000000	00000000	00000000	00000000	00000000	00000000
SW22	00000000	00000000	00000000	00000000	00000000	00000000
SW23	00000000	00000000	00000000	00000000	00000000	00000000
SW24	00000000	00000000	00000000	00000000	00000000	00000000
SW25	00000000	00000000	00000000	00000000	00000001	00000000
SW26	00000000	00000000	00000000	00000000	00000000	00000000
SW27	00000000	00000000	00000000	00000000	00000000	00000000
SW28	00000000	00000000	00000000	00000000	00000000	00000000
SW29	00000000	00000000	00000000	00000000	00000000	00000000
SW30	00000000	00000000	00000000	00000000	00000000	00000000
#2 MENU						
05:	OFF	OFF	OFF	OFF	OFF	OFF
06:	DIAL	DIAL	DIAL	DIAL	DIAL	DIAL
07:	10	10	10	10	10	10
08:	3429	3429	3429	3429	3429	3429
09:	33.6	33.6	33.6	33.6	33.6	33.6
10:	25Hz	25Hz	25Hz	25Hz	25Hz	25Hz

SSSW Default Setting

TYPE	NORWAY	HOLLAND	BELGIUM	AUSTRALIA	FINLAND	N.Z.
#1 SSSW						
SW01	00010000	00010000	00010000	00010000	00010001	00010000
SW02	00000000	00000000	00000000	00000000	00000000	00000000
SW03	00000000	00000000	00000000	00000000	00000000	00000000
SW04	10000010	10000010	10000000	10000000	10000000	10000000
SW05	00000000	00000000	00000000	00000000	00000000	00000000
SW06	10000000	10000000	10000000	10000000	10000000	10000000
SW07	00000000	00000000	00000000	00000000	00000000	00000000
SW08	00000000	00000000	00000000	00000000	00000000	00000000
SW09	00000000	00000000	00000000	00000000	00000000	00000000
SW10	00000000	00000000	00000000	00000000	00000000	00000000
SW11	00000000	00000000	00000000	00000000	00000000	00000000
SW12	00000010	00000010	00000010	00000010	00000010	00000010
SW13	00000000	00000000	00000000	00000000	00000000	00000000
SW14	00000000	00000000	00000000	00000000	00000000	00000000
SW15	00000000	00000000	00000000	00000000	00000000	00000000
SW16	00000011	00000011	00000011	00000011	00000011	00000011
SW17	00000000	00000000	00000000	00000000	00000000	00000000
SW18	00000000	00000000	00000000	00000000	00000000	00000000
SW19	00000000	00000000	00000000	00000000	00000000	00000000
SW20	00000000	00000000	00000000	00000000	00000000	00000000
SW21	00000000	00000000	00000000	00000000	00000000	00000000
SW22	00000000	00000000	00000000	00000000	00000000	00000000
SW23	00000000	00000000	00000000	00000000	00000000	00000000
SW24	00000000	00000000	00000000	00000000	00000000	00000000
SW25	00000000	00000000	00000000	00000000	00000000	00000000
SW26	00000000	00000000	00000000	00000000	00000000	00000000
SW27	00000000	00000000	00000000	00000000	00000000	00000000
SW28	00000000	00000000	00000000	00000000	00000000	00000000
SW29	00000000	00000000	00000000	00000000	00000000	00000000
SW30	00000000	00000000	00000000	00000000	00000000	00000000
#2 MENU						
05:	OFF	OFF	OFF	OFF	OFF	OFF
06:	DIAL	DIAL	DIAL	DIAL	DIAL	DIAL
07:	10	10	10	12	10	13
08:	3429	3429	3429	3429	3429	3429
09:	33.6	33.6	33.6	33.6	33.6	33.6
10:	25Hz	25Hz	25Hz	25Hz	25Hz	25Hz

SSSW Default Setting

TYPE	ITALY	SPAIN	PORTUGAL	IRELAND	HONG KONG	MALAYSIA
#1 SSSW						
SW01	00010000	00010000	00010000	00010000	00010000	00010000
SW02	00000000	00000000	00000000	00000000	00000000	00000000
SW03	00000000	00000000	00000000	00000000	00000000	00000000
SW04	10000010	10000010	10000010	10000000	10000000	10000000
SW05	00000000	00000000	00000000	00000000	00000000	00000000
SW06	10000000	10000000	10000000	10000000	10000000	10000000
SW07	00000000	00000000	00000000	00000000	00000000	00000000
SW08	00000000	00000000	00000000	00000000	00000000	00000000
SW09	00000000	00000000	00000000	00000000	00000000	00000000
SW10	00000000	00000000	00000000	00000000	00000000	00000000
SW11	00000000	00000000	00000000	00000000	00000000	00000000
SW12	00000010	00000010	00000010	00000010	00000010	00000010
SW13	00000000	00000000	00000000	00000000	00000000	00000000
SW14	00000000	00000000	00000000	00000000	00000000	00000000
SW15	00000000	00000000	00000000	00000000	00000000	00000000
SW16	00000011	00000011	00000011	00000011	00000011	00000011
SW17	00000010	00000000	00000000	00000000	00000000	00000000
SW18	00000000	00000000	00000000	00000000	00000000	00000000
SW19	00000000	00000000	00000000	00000000	00000000	00000000
SW20	00000000	00000000	00000000	00000000	00000000	00000000
SW21	00000000	00000000	00000000	00000000	00000000	00000000
SW22	00000000	00000000	00000000	00000000	00000000	00000000
SW23	00000000	00000000	00000000	00000000	00000000	00000000
SW24	00000000	00000000	00000000	00000000	00000000	00000000
SW25	00000000	00000001	00000000	00000000	00000000	00000000
SW26	10000000	00000000	00000000	00000000	00000000	00000000
SW27	00000000	00000000	00000000	00000000	00000000	00000000
SW28	00000000	00000000	00000000	00000000	00000000	00000000
SW29	00000000	00000000	00000000	00000000	00000000	00000000
SW30	00000000	00000000	00000000	00000000	00000000	00000000
#2 MENU						
05:	OFF	OFF	OFF	OFF	OFF	OFF
06:	DIAL	DIAL	DIAL	DIAL	DIAL	DIAL
07:	10	10	10	10	10	10
08:	3429	3429	3429	3429	3429	3429
09:	33.6	33.6	33.6	33.6	33.6	33.6
10:	25Hz	25Hz	25Hz	25Hz	25Hz	25Hz

SSSW Default Setting

TYPE	HUNGARY	SAF	CHINA	GERMAN	SINGAPORE	CZECH
#1 SSSW						
SW01	00010000	00010000	00010000	00010000	00010000	00010000
SW02	00000000	00000000	00000000	00000000	00000000	00000000
SW03	00000000	00000000	00000000	00000000	00000000	00000000
SW04	10000000	10000000	10000000	00000010	10000000	10000000
SW05	00000000	00000000	00000000	00000000	00000000	00000000
SW06	10000000	10000000	10000000	10000000	10000000	10000000
SW07	00000000	00000000	00000000	00000000	00000000	00000000
SW08	00000000	00000000	00000000	00000000	00000000	00000000
SW09	00000000	00000000	00000000	00000000	00000000	00000000
SW10	00000000	00000000	00000000	00000000	00000000	00000000
SW11	00000000	00000000	00000000	00000000	00000000	00000000
SW12	00000010	00000010	00000010	00000010	00000010	00000010
SW13	00000000	00000000	00000000	00000000	00000000	00000000
SW14	00000000	00000000	00000000	00000000	00000000	00000000
SW15	00000000	00000000	00000000	00000000	00000000	00000000
SW16	00000011	00000011	00000011	00000011	00000011	00000011
SW17	00000000	00000000	00000000	00000000	00000000	00000000
SW18	00000000	00000000	00000000	00000000	00000000	00000000
SW19	00000000	00000000	00000000	00000000	00000000	00000000
SW20	00000000	00000000	00000000	00000000	00000000	00000000
SW21	00000000	00000000	00000000	00000000	00000000	00000000
SW22	00000000	00000000	00000000	00001000	00000000	00000000
SW23	00000000	00000000	00000000	00000000	00000000	00000000
SW24	00000000	00000000	00000000	00000000	00000000	00000000
SW25	00000000	00000000	00000000	00000001	00000000	00000000
SW26	00000000	00000000	00000000	00000000	00000000	00000000
SW27	00000000	00000000	00000000	00000000	00000000	00000000
SW28	00000000	00000000	00000000	00000000	00000000	00000000
SW29	00000000	00000000	00000000	00000000	00000000	00000000
SW30	00000000	00000000	00000000	00000000	00000000	00000000
#2 MENU						
05:	OFF	OFF	OFF	OFF	OFF	OFF
06:	DIAL	DIAL	DIAL	DIAL	DIAL	DIAL
07:	10	10	13	10	10	10
08:	3429	3429	3429	3429	3429	3429
09:	33.6	33.6	33.6	33.6	33.6	33.6
10:	25Hz	25Hz	25Hz	25Hz	25Hz	25Hz

SSSW Default Setting

TYPE	SLOVENIA	FRANCE	ASIA
#1 SSSW			
SW01	00010000	00010000	00010000
SW02	00000000	00000000	00000000
SW03	00000000	00000000	00000000
SW04	10000000	00000010	10000000
SW05	00000000	00000000	00000000
SW06	10000000	10000000	10000000
SW07	00000000	00000000	00000000
SW08	00000000	00000000	00000000
SW09	00000000	00000000	00000000
SW10	00000000	00000000	00000000
SW11	00000000	00000000	00000000
SW12	00000010	00000010	00000010
SW13	00000000	00000000	00000000
SW14	00000000	00000000	00000000
SW15	00000000	00000000	00000000
SW16	00000011	00000011	00000011
SW17	00000000	00000000	00000000
SW18	00000000	00000000	00000000
SW19	00000000	00000000	00000000
SW20	00000000	00000000	00000000
SW21	00000000	00000000	00000000
SW22	00000000	00000000	00000000
SW23	00000000	00000000	00000000
SW24	00000000	00000000	00000000
SW25	00000000	00000001	00000000
SW26	00000000	00000000	00000000
SW27	00000000	00000000	00000000
SW28	00000000	00000000	00000000
SW29	00000000	00000000	00000000
SW30	00000000	00000000	00000000
#2 MENU			
05:	OFF	OFF	OFF
06:	DIAL	DIAL	DIAL
07:	10	10	10
08:	3429	3429	3429
09:	33.6	33.6	33.6
10:	25Hz	25Hz	25Hz

SSSW Default Setting

TYPE	EUROPE	U.K.	SWEDEN	SWISS	AUSTRIA	DENMARK
#3 NUMERIC Param						
02:	10	10	10	10	10	10
03:	15	15	15	15	15	15
04:	12	12	12	12	12	12
05:	4	4	4	4	4	4
06:	4	1	4	4	4	4
07:	350	350	350	350	350	350
09:	6	6	6	6	6	6
10:	5500	5500	5500	5500	5500	5500
11:	3500	3500	3500	3500	3500	3500
13:	1310	1310	1310	1310	1310	1310
15:	120	120	120	120	120	120
16:	4	4	4	4	4	4
17:	100	100	100	40	100	75
18:	0	0	0	20	0	0
19:	400	400	400	200	400	250
20:	100	100	100	100	100	100
21:	0	0	0	0	0	0
22:	400	400	400	400	400	400
23:	44	44	44	44	44	44
24:	10	10	10	10	10	10
25:	60	60	60	60	60	60
26:	44	44	44	44	44	44
#5 TYPE	EUROPE	U.K.	SWEDEN	SWISS	AUSTRIA	DENMARK

SSSW Default Setting

TYPE	NORWAY	HOLLAND	BELGIUM	AUSTRALIA	FINLAND	N.Z.
#3 NUMERIC Param						
02:	10	10	10	10	10	10
03:	15	15	15	15	15	15
04:	12	12	12	12	12	12
05:	4	4	4	4	4	4
06:	4	4	4	4	4	4
07:	350	350	350	350	350	350
09:	6	6	6	6	6	6
10:	5500	5500	5500	5500	5500	5500
11:	3500	3500	3500	3500	3500	3500
13:	1310	1310	1310	1310	1310	1310
15:	120	120	120	120	120	120
16:	4	4	4	4	3	2
17:	30	100	100	100	100	100
18:	30	0	0	0	0	0
19:	400	400	300	400	400	400
20:	30	100	100	100	100	100
21:	30	0	0	0	0	0
22:	400	400	300	400	400	400
23:	44	44	44	44	44	44
24:	10	10	10	10	12	10
25:	60	60	60	60	60	60
26:	44	44	44	44	44	44
#5 TYPE	NORWAY	HOLLAND	BELGIUM	AUSTRALIA	FINLAND	N.Z.

SSSW Default Setting

TYPE	ITALY	SPAIN	PORTUGAL	IRELAND	HONG KONG	MALAYSIA
#3 NUMERIC Param						
02:	10	10	10	10	10	10
03:	15	15	15	15	15	15
04:	12	12	12	12	12	12
05:	4	15	4	4	4	4
06:	4	3	4	4	1	4
07:	350	350	350	350	350	350
09:	6	6	6	6	6	6
10:	5500	5500	5500	5500	5500	5500
11:	3500	3500	3500	3500	3500	3500
13:	1310	1310	1310	1310	1310	1310
15:	120	120	120	120	120	120
16:	4	4	4	4	4	4
17:	100	100	100	100	40	100
18:	0	0	0	0	20	0
19:	400	400	400	400	200	400
20:	100	100	100	100	40	100
21:	0	0	0	0	20	0
22:	400	400	400	400	200	400
23:	44	44	44	44	44	44
24:	10	10	10	10	10	10
25:	60	60	60	60	60	60
26:	44	44	44	44	44	44
#5 TYPE	ITALY	SPAIN	PORTUGAL	IRELAND	HONG KONG	MALAYSIA

SSSW Default Setting

TYPE	HUNGARY	SAF	CHINA	GERMAN	SINGAPORE	CZECH
#3 NUMERIC Param						
02:	10	10	10	8	10	10
03:	15	15	15	15	15	15
04:	12	12	12	6	12	12
05:	4	4	4	4	4	4
06:	4	4	4	4	4	4
07:	350	350	350	350	350	350
09:	6	6	6	6	6	6
10:	5500	3500	4300	9000	5500	5500
11:	3500	3500	3500	3500	3500	3500
13:	1310	1310	1200	1310	1310	1310
15:	120	120	120	120	120	120
16:	4	4	4	4	4	4
17:	100	100	100	100	100	100
18:	0	0	0	0	0	0
19:	400	400	400	400	400	400
20:	100	100	100	100	100	100
21:	0	0	0	0	0	0
22:	400	400	400	400	400	400
23:	44	44	44	44	44	44
24:	10	10	10	10	10	10
25:	60	60	60	60	60	60
26:	44	44	44	44	44	44
#5 TYPE	HUNGARY	SAF	CHINA	GERMAN	SINGAPORE	CZECH

TYPE	SLOVENIA	FRANCE	ASIA
#3 NUMERIC Param			
02:	10	8	10
03:	15	15	15
04:	12	12	12
05:	4	4	4
06:	4	4	4
07:	350	350	350
09:	6	6	6
10:	5500	5500	5500
11:	3500	3800	3500
13:	1310	1310	1310
15:	120	120	120
16:	4	4	4
17:	100	30	100
18:	0	30	0
19:	400	400	400
20:	100	150	100
21:	0	0	0
22:	400	300	400
23:	44	44	44
24:	10	10	10
25:	60	60	60
26:	44	44	44
#5 TYPE	SLOVENIA	FRANCE	ASIA

6. TEST FUNCTIONS

6.1 Service Test Functions

The fax functions for testing individual operations, such as below.

See *Page 3-36* for details of entering the test mode. To leave the test mode, press the *CLEAR* button.

6.1.1 Test mode overview

Test mode can be executed by following the menu items from the display.

a) DRAM tests

Writes data to DRAM image storage areas and reads that data to check operations.

b) Print test

Prints nine different patterns within the print area.

c) Modem, NCU tests

These tests comprise the frequency test, the G3 signal transmission test, and the CNG and DTMF signals reception test, and V.34 G3 signal transmission test.

d) Faculty tests

These tests check the operation of operation panel and sensor functions.

6.1.2 Test mode flowchart

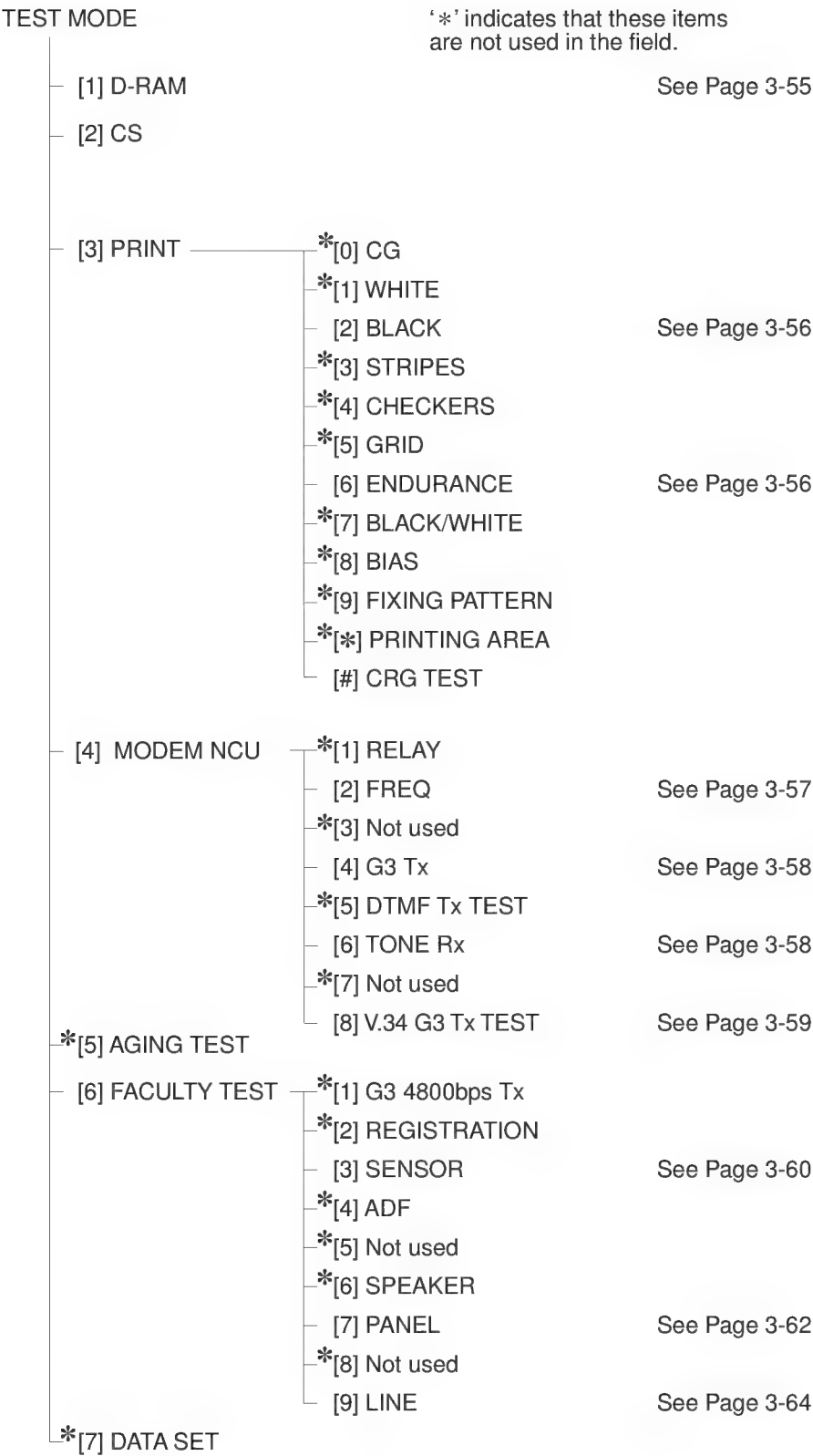


Figure 3-18 Test Mode

6.1.3 D-RAM tests

Pressing the 1 button from the test mode menu selects the D-RAM tests. D-RAM Test 1 writes data to the entire D-RAM region and reads it out to check that operations are correct. D-RAM Test 2 just reads data at high speed.

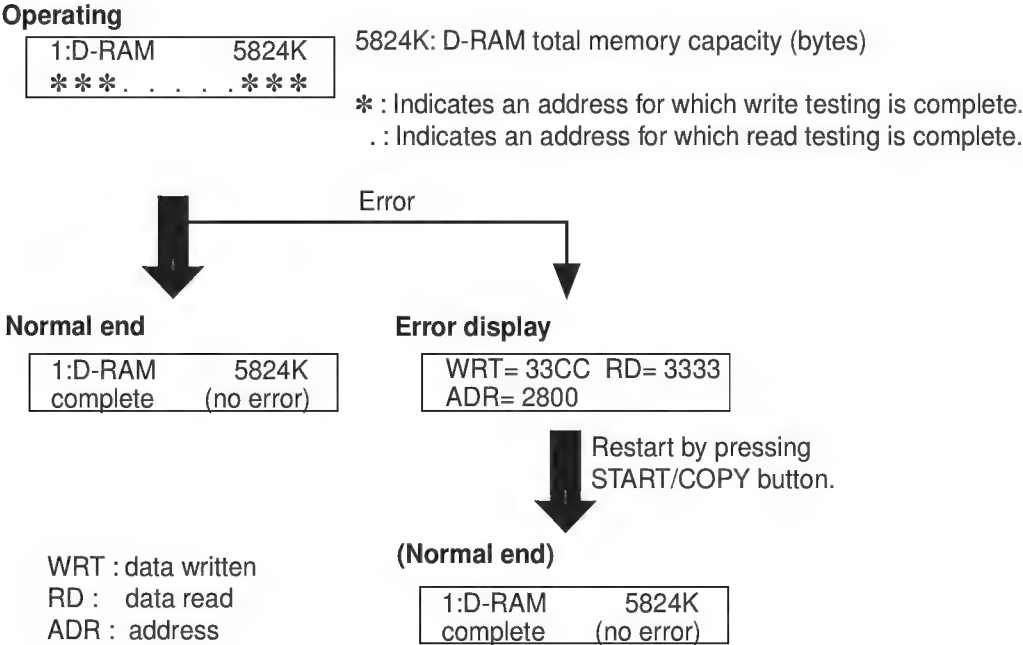


Figure 3-19 D-RAM Test

6.1.4 Print

The Print Test menu is selected by pressing the 3 key from the test mode menu. In this test, various print patterns are output from the printer. As service print patterns, press *numeric* button 2 from the Print Test menu to select “3-2: Black” or press numeric button 6 to select “3-6: Endurance”. Do not use the other patterns. They are for development and factory use. Check the following for the print pattern.

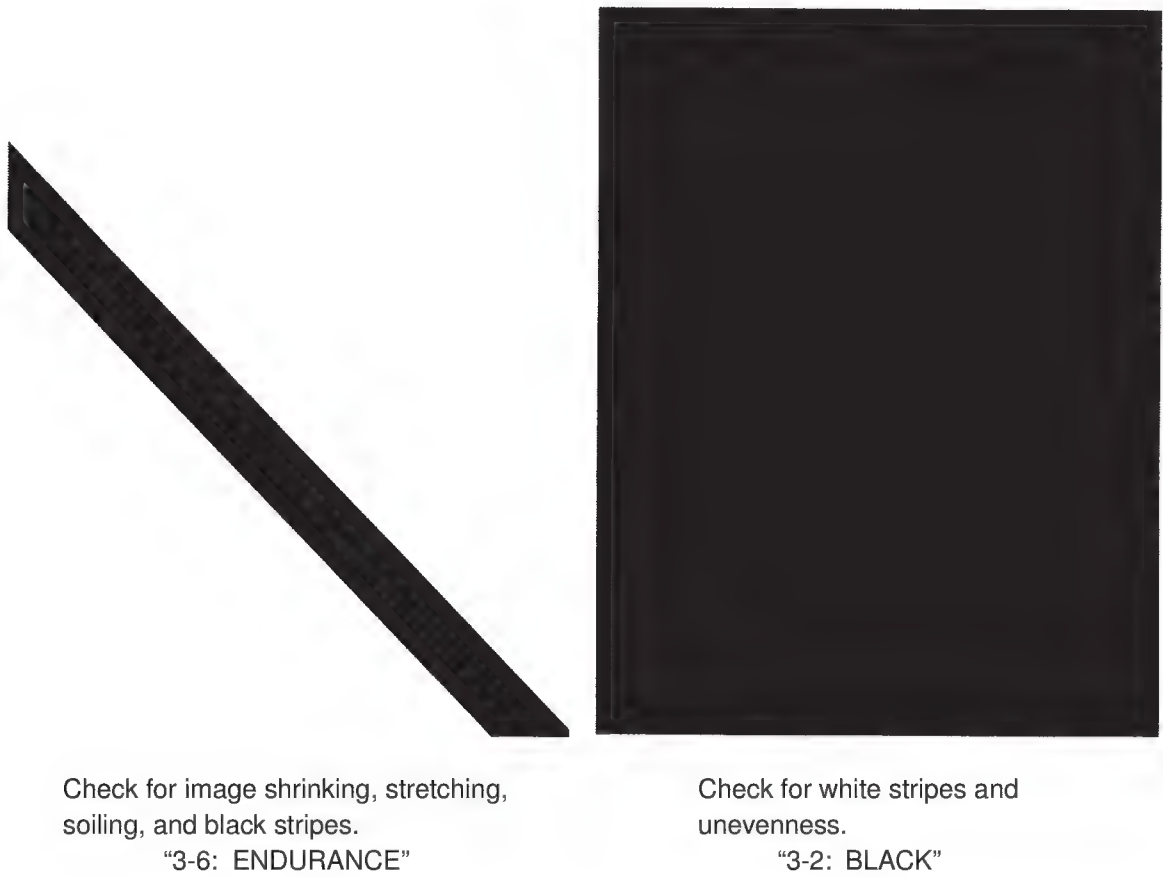


Figure 3-20 Print Pattern Check



After completion of the print test, if the printing was normal, copy a document. If there is any defect in the copied image, there is a defect in the scan section.

6.1.5 Modem and NCU tests

These tests test modem and NCU transmission and reception. The modem tests check whether signals are sent correctly from the modem by comparing the sound of the signals from the speaker with the sounds from a normal modem. Also, on the display indicates whether or not the modem correctly detected received tone signals and DTMF signals.

End this test by pressing the *STOP* button.

Modem test type	Overview
Frequency test	The modem sends tone signals from the modular jack and the speaker.
G3 signal transmission test	The modem sends G3 signals from the modular jack and the speaker.
Tonal signal reception tests	The modem detects specific frequencies and DTMF signals received from the modular jack.
V.34 G3 signal transmission test	The modem sends V.34 G3 signals from the modular jack and the speaker.

a) Frequency test

The frequency test menu is selected by pressing numeric button 2 from the MODEM NCU test menu. Signals of the frequencies below are sent from the modem using the modular jack and the speaker. The frequency can be changed with the numeric buttons.

Numeric button	Frequency
1	462 Hz
2	1100 Hz
3	1300 Hz
4	1500 Hz
5	1650 Hz
6	1850 Hz
7	2100 Hz



NOTE

The pseudo-ringback tone transmission pattern and frequency and the output levels for each frequency follow the service data transmission level settings.

b) G3 signal transmission test

The G3 signal transmission test menu is selected by pressing numeric button 4 from the MODEM NCU test menu. The G3 signals below are sent from the modem using the modular jack and the speaker. The frequency can be changed with the numeric buttons.

Numeric button	Frequency
0	300 bps
1	2400 bps
2	4800 bps
3	7200 bps
4	9600 bps
5	TC7200 bps
6	TC9600 bps
7	12000 bps
8	14400 bps



The transmission level can be changed with the *FUNCTION* button then < and > button.

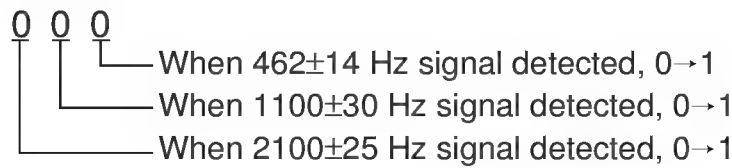
NOTE

c) Tonal and DTMF signal reception test

The tonal and DTMF signal reception test is selected by pressing the 6 button from the MODEM NCU test menu. This test checks whether the tonal signals and DTMF signals received from the modular jack are detected by the modem.

Tonal signal reception test

4 - 6 : TONE Rx	0 0 0
-----------------	-------



DTMF signal reception test

4 - 6 : TONE Rx	0 0 0
	1 2 3 4 5 6 7 8 9 0

The received DTMF signals are displayed in order from the right on the second line of the display.

Figure 3-21 Tonal and DTMF Signal Reception Test

d) V.34 G3 signal transmission test

The V.34 G3 signal transmission test menu is selected by pressing numeric button 8 from the MODEM NCU test menu. The V.34 G3 signals below are sent from the modem using the modular jack and the speaker by pressing the start key. The baud rate can be changed with the numeric button, and the Speed can be changed with the search button.

Numeric button	Baud rate
0	3429 baud
1	3200 baud
2	3000 baud
3	2800 baud
4	2743 baud
5	2400 baud

Search button	Speed
^	2400 bps
	4800 bps
	7200 bps
	9600 bps
	12000 bps
	14400 bps
	16800 bps
v	19200 bps
	21600 bps
	24000 bps
	26400 bps
	28800 bps
	31200 bps
	33600 bps

**NOTE**

The transition level for each frequency follows the service data.

6.1.6 Faculty tests

The faculty tests are selected by pressing numeric button 6 from the test mode menu. These tests check the following faculties of this fax.

Test type	Overview
Sensor tests	Test whether the sensors are operating correctly.
Operation panel test	Tests whether the button switches on the control panel are operating correctly.
Line signal reception test	Tests whether the NCU board signal sensor and frequency counter are operating correctly.

a) Sensor tests

The sensor test is selected by pressing numeric button 3 from the faculty test menu. This test checks the status of each sensor of this fax in item 1 on the display.

Sensors that use actuators and microswitches can be checked by moving the actuator or microswitch.

6-3 : SENSOR
[1] --- [5]

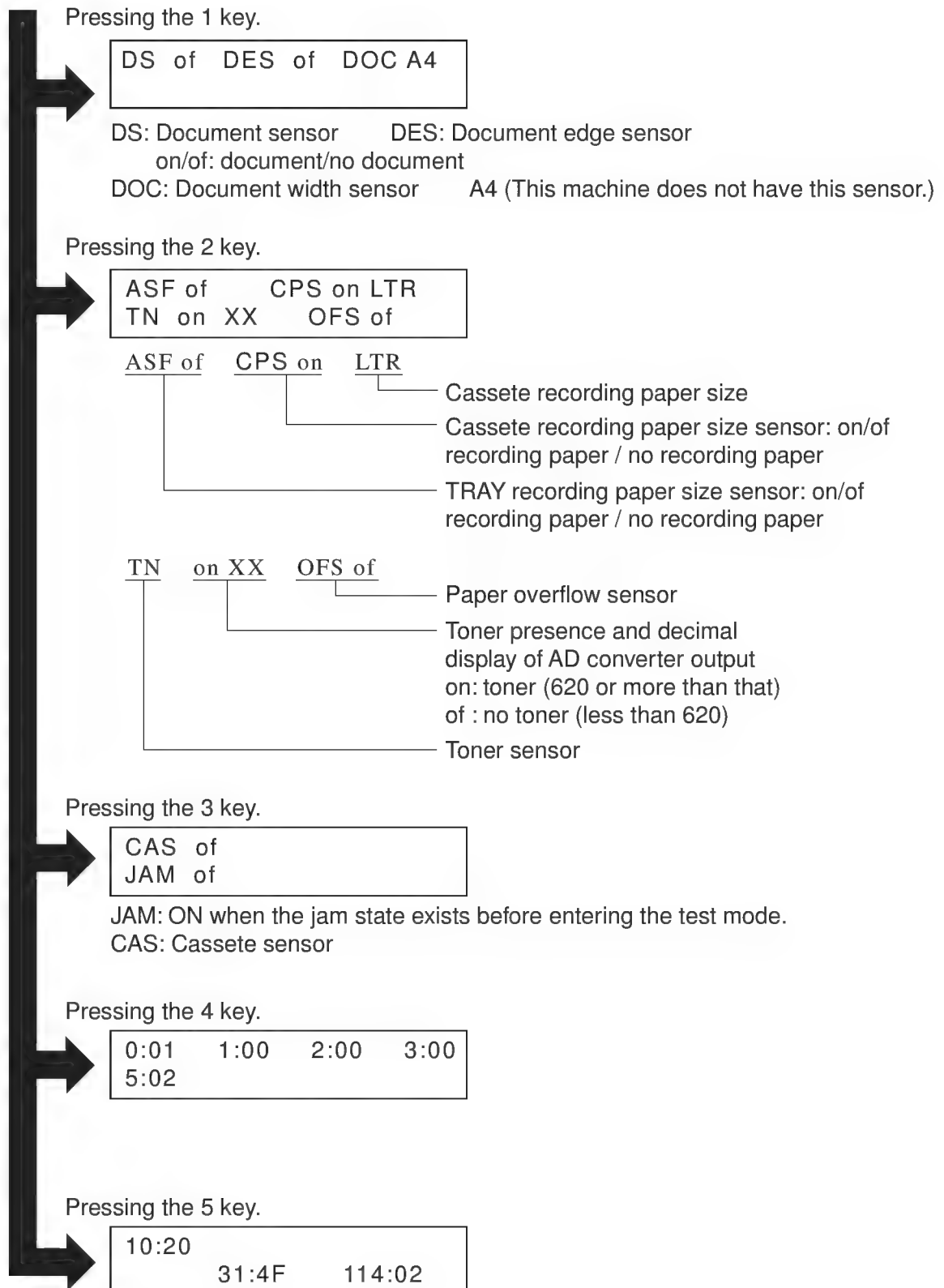


Figure 3-22 Sensor Tests

b) Operation panel tests

The operation panel test is selected by pressing numeric button 7 from the faculty test menu. This test checks that the display, LED lamps, and buttons on the control panel are operating correctly.

b-1) Display test

Pressing the *START/COPY* button from the control panel menu, "H" is displayed 20 characters by 2 line on the display. The next time the *START/COPY* button is pressed, all the LCD dots on the display are displayed. Check for any LCD dots in the display that are not displayed.

b-2) LED lamp test

The LED lamp test is selected by pressing the *START/COPY* button after the display test.

When the *START/COPY* button is pressed, ALARM lamp, In Use/Memory lamp on the control panel light. Check for any LED that does not light during the test.

b-3) Operation button test

The Operation button test is selected by pressing the *START/COPY* button after the LED lamp test.

In this test, you press the button corresponding to the displayed character to put it out. The table giving the correspondence between the characters and the buttons is below.

Character	Operation button	Character	Operation button
1-#	Numeric buttons	\$	Resolution button
P	R button	&	Receive mode button
R	Redial/Pause button	E	Set button
D	Coded dial/Directory button	O	Hook button

When all the characters displayed have gone out, the system next starts the one-touch speed dialing button test. The letters a-f are displayed on the display, corresponding to one-touch speed dialing buttons 01-32. Each letter displayed on the display goes out when its corresponding one-touch speed dialing button is pressed.

In this test, check for operation buttons whose corresponding character or letter does not go out when the button is pressed.

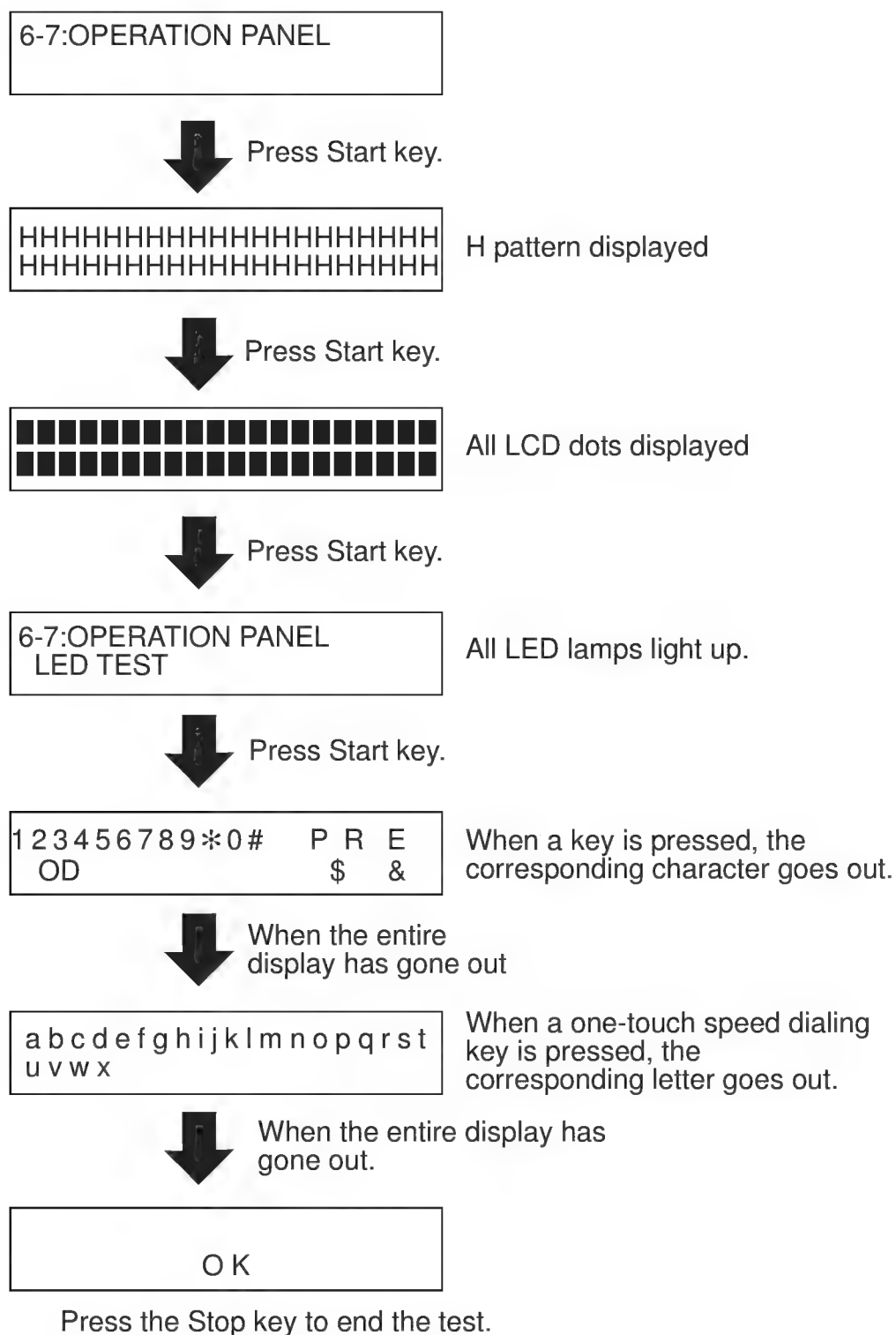


Figure 3-23 Operation Panel

c) Line signal reception test

The line detect test menu is selected by pressing numeric button 9 from the faculty test menu. This test checks the operation of the NCU signal sensor and frequency counter. In Menu 1, the CI, status can be detected and in Menu 2 the frequency can be detected at changing detection levels. In this way, you can check if the NCU board is correctly detecting signals.

c-1) Test Menu 1

Test Menu 1 is selected by pressing numeric button 1 from the Line Detect menu. When CI, is detected from the modular jack, the display changes from OFF to ON and the received frequency is displayed.

c-2) Test Menu 2

Not used

c-3) Test Menu 3

Test Menu 3 is selected by pressing numeric button 3 from the Line Detect menu. When CNG is detected from the modular jack, the display changes from OFF to ON.

7. SERVICE REPORT

7.1 Report Output Function

7.1.1 User report output functions

The fax can output user reports manually, and some reports can be output automatically using the to user data settings.

a) Manual output of reports

Report type	Operations
Activity Report	After pressing the <i>Report</i> button, use the \wedge or \vee button to select ACTIVITY REPORT . After pressing the <i>Set</i> button.
User's Data List	After pressing the <i>Report</i> button, use the \wedge or \vee button to select USER DATA LIST . After pressing the <i>Set</i> button.
Speed Dialing Lists	Press the <i>Report</i> button, then use the \wedge or \vee button to select SPEED DIAL LIST . After pressing the <i>Set</i> button, then use the N or M button to select List. After pressing the <i>Set</i> button.
1-touch dial list	
Coded speed dial list	
1-touch (Detail)	
Coded (Detail)	
Group dial list	
Document Memory List	After pressing the <i>Report</i> button, then use the \wedge or \vee button to select DOC. MEMORY LIST . After pressing the <i>Set</i> button.

b) Reports which can be output automatically using user data and PC settings

Each report written below can be automatically output by specifying “REPORT SETTING” in user data.

Transmission report

Reception report



ROM Version display

The ROM version is printed on the top left hand side of the User's data list. Please refer to this when troubleshooting.

example:

EC-XX-XX

MAIN ROM version

c) Reports output automatically

Memory clear list

The fax automatically outputs a memory clear list when the power is turned on after a power cut.

25/09/1999 09:39 FAX

001

*** MEMORY CLEAR REPORT ***

MEMORY FILES DELETED

TX/RX NO	MODE	CONNECTION TEL/ID	PGS.	SET TIME	ST. TIME
0002	DELAYED TX	1234567890	1	09/25 17:34	08:00
0003	B' CAST	[01]	1	09/25 17:46	
		[02]			

Figure 3-24 Memory Clear List

- TX/RX NO

MODE

CONNECTION TEL

PAGES

SET TIME

START TIME
- : Indicates four digits of the transaction number

: Indicates, **TRANSMISSION**, or **MEMORY RX**.

: Number sent from the other party or number dialled

: Number of pages stored in memory

: Time when data was stored in memory

: Planned transmission start time (24-hour display)

7.1.2 Service report output functions

The fax outputs current service data settings, and past communications history reports.

a) List of service reports

The fax outputs the service reports shown below.

Report type	Operations
1. Service & System list	In the service mode, pressing the Report button, then use the \wedge or \vee button to select list.
2. System data list	
3. System dump list	
Service activity report (with service error code and dump list)	If you set bits 0 and 1 of #1 SSSW SW01 in the service mode, the service error code and dump list are indicated on the activity report (sending/receiving).

a-1) System data list

This list shows the current settings service data #1~#5, #7 and #9.

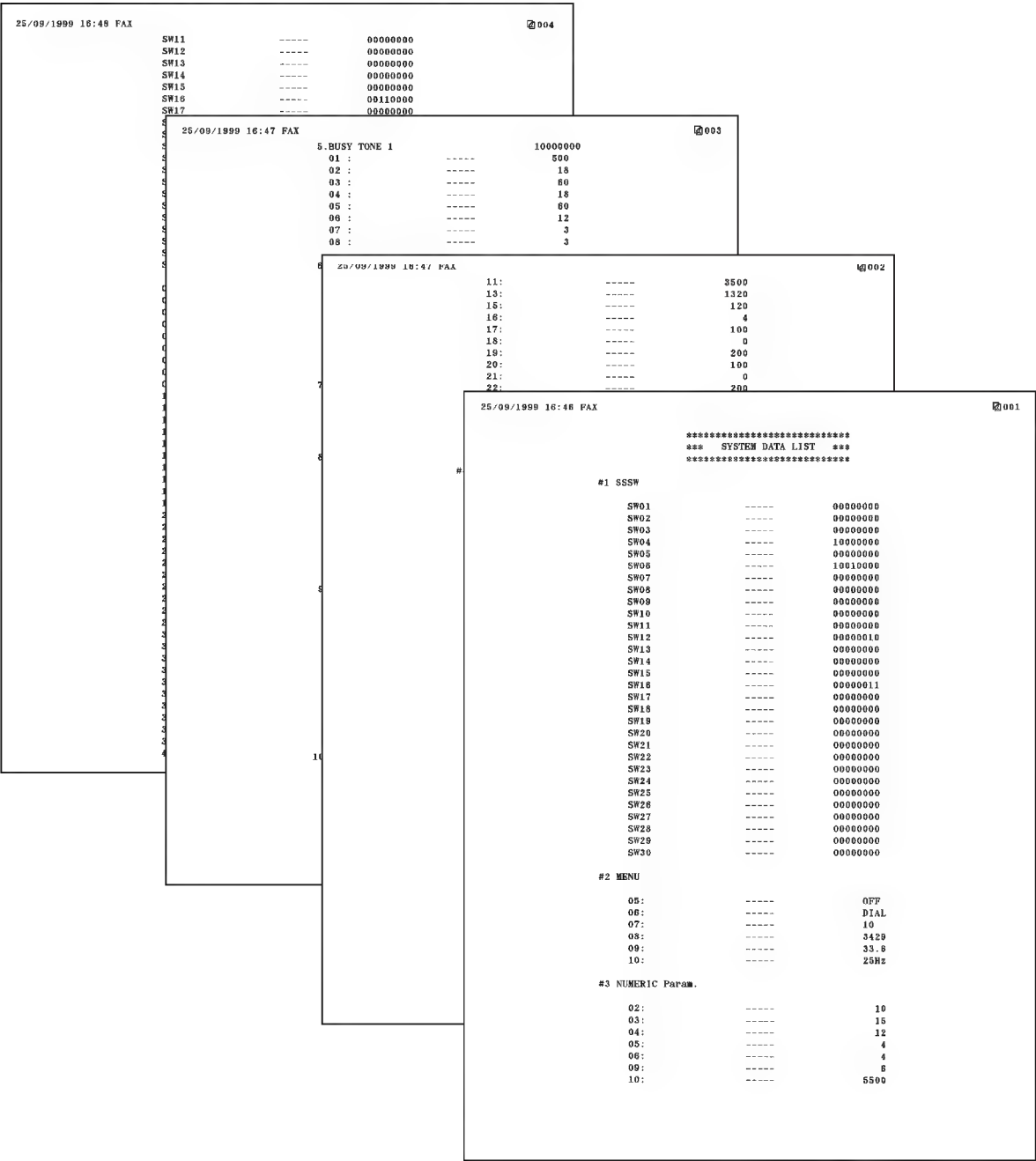


Figure 3-25 System Data List (page 1 ~ page 4)

25/09/1999 16:48 FAX			006
01 :	----	14	
02 :	----	0	
03 :	----	0	

25/09/1999 16:48 FAX			005
41 :	----	0	
42 :	----	0	
43 :	----	0	
44 :	----	0	
45 :	----	0	
46 :	----	0	
47 :	----	10	
48 :	----	50	
49 :	----	0	
50 :	----	0	
11. RKEY			
01 :	----	0	
02 :	----	0	
03 :	----	0	
12. PBX DIAL TONE		00000000	
01 :	----	350	
02 :	----	90	
03 :	----	10	
04 :	----	0	
05 :	----	0	
06 :	----	0	
07 :	----	5	
08 :	----	0	
13. PBX BUSY TONE		00000000	
01 :	----	1000	
02 :	----	40	
03 :	----	60	
04 :	----	40	
05 :	----	60	
06 :	----	1	
07 :	----	5	
08 :	----	3	

Figure 3-26 System Data List (page 5, page 6)



NOTE

“START DATE” records the date when the fax performs its first operation, after shipment from the factory.

CLEAR DATE : Date on which data was initialized using service data **#8 CLEAR, ALL**
 RX/TX : Total number of pages received/transmitted
 A4/B4/A3/LTR/LGL : Total number of pages transmitted and received for each document size
 33600 bps~2400 bps : Total number of pages transmitted and received for each modem speed
 STD/FINE/SUPER/ULTRA : Total number of pages transmitted and received for each mode
 MH/MR/MMR/JBIG : Total number of pages transmitted and received for each coding method
 G3/ECM : Total number of pages transmitted and received in each mode
 PRINT/READ : Total number of pages printed/scanned

[Display example]

PRINT = 30*/100** READ = 30*/100**

* Indicates the value input with Service Data **#8 CLEAR, COUNTER**.

** Indicates the value counted since shipment from the factory.

#000~##750

[Display example] : Total number of occurrences for each error code

##280	1	7	3	0	0
	##280	##281	##282		
	errors	errors	errors		

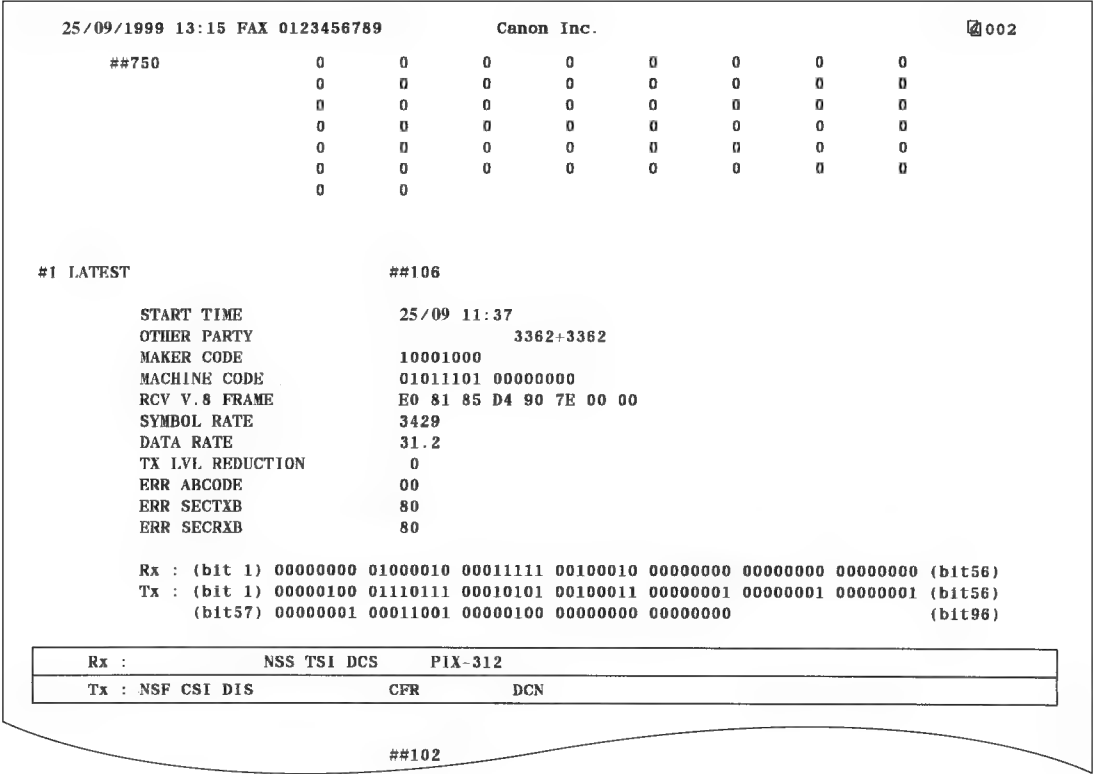


Figure 3-28 System Dump List (2/2)

- ##nnn : Service error code
- START TIME : Communication start date and time (on 24 hour clock)
- OTHER PARTY : Telephone number sent from other party
- MAKER CODE : Maker code
(For details, see Chapter 4: 3. MAKER-CODE on page 4-5)
- [1000 1000] Indicates a Canon fax
└─┬─┘
lower nibble
upper nibble
- RCV V.8 FRAME : Received V.8 protocol signal
- SYMBOL RATE : Symbol rate used for the primary channel
- TX LVL REDUCTION : 0 (Fixed)
- ERR ABCODE : Code output by the modem when an error occurred (Not used in the field)
- ERR SECTXB : Transmit status of the modem when an error occurred (Not used in the field)
- ERR SECRXB : Received status of the modem when an error occurred (Not used in the field)
- RX/TX : Received/transmitted protocol signal
bit 1 to bit 96 of received/transmitted DIS, DCS, or DTS



If no service errors have occurred in the past, the above report will not be output.

a-3) Service activity report (sending/receiving)

25/09/1999 12:54 FAX +3364 3364 001

 *** ERROR TX REPORT ***

TX FUNCTION WAS NOT COMPLETED

TX/RX NO	0035	
CONNECTION TEL		3361
CONNECTION ID	AA	
ST. TIME	06/17 12:54	
USAGE T	00'22	
PGS. SENT	0	
RESULT	NG	##755

START TIME	25/09 12:54	
OTHER PARTY		3361
MAKER CODE	10001000	
MACHINE CODE	10101010 00000000	
RCV V.8 FRAME	E0 81 85 D4 90 7E 00 00	
SYMBOL RATE	3429	
DATA RATE	28.8	

Figure 3-29 Service Error Tx Report

Header	: OK, NG messages
TX/RX NO	: Indicates four digits of the transaction number
CONNECTION TEL (OTHER PARTY)	: Number sent from the other party or number dialed (lower 20 digits)
SUBADDRESS	: Subaddress number sent from the other party
CONNECTION ID	: ID sent from the other party, if the other party is a Canon fax
START TIME	: Communication start date and time (on 24-hour display)
USAGE TIME	: Communication time (in minutes and seconds)
PAGES	: Number of pages for which transmission was complete (For details, <i>see User's manual</i>)
RESULT	: "NG" display with number of pages for which transmission was fault, and service error code
MAKER CODE	: Maker code (For details, <i>see Chapter 4: 3. MAKER-CODE on page 4-5</i>) <div style="margin-left: 40px;"> <div style="display: inline-block; text-align: center; vertical-align: middle;"> <div style="border-top: 1px solid black; width: 40px; margin: 0 auto;"></div> <div style="border-top: 1px solid black; width: 40px; margin: 0 auto;"></div> </div> <div style="display: inline-block; vertical-align: middle; margin-left: 10px;"> [1000 1000] Indicates a Canon fax lower nibble upper nibble </div> </div>
RCV V.8 FRAME	: Received V.8 protocol signal
SYMBOL RATE	: Symbol rate used for the primary channel
TX LVL REDUCTION	: 0 (Fixed)
ERR ABCODE	: Code output by the modem when an error occurred (Not used in the field)
ERR SECTXB	: Transmit status of the modem when an error occurred (Not used in the field)
ERR SECRXB	: Received status of the modem when an error occurred (Not used in the field)
RX/TX	: Received/transmitted protocol signal bit 1 to bit 96 of received/transmitted DIS, DCS, or DTS



NOTE

The V.8/V.34-related items (RCV V.8 FRAME to ERR SECRXB) are not printed on the Normal G3 Service Activity Report.

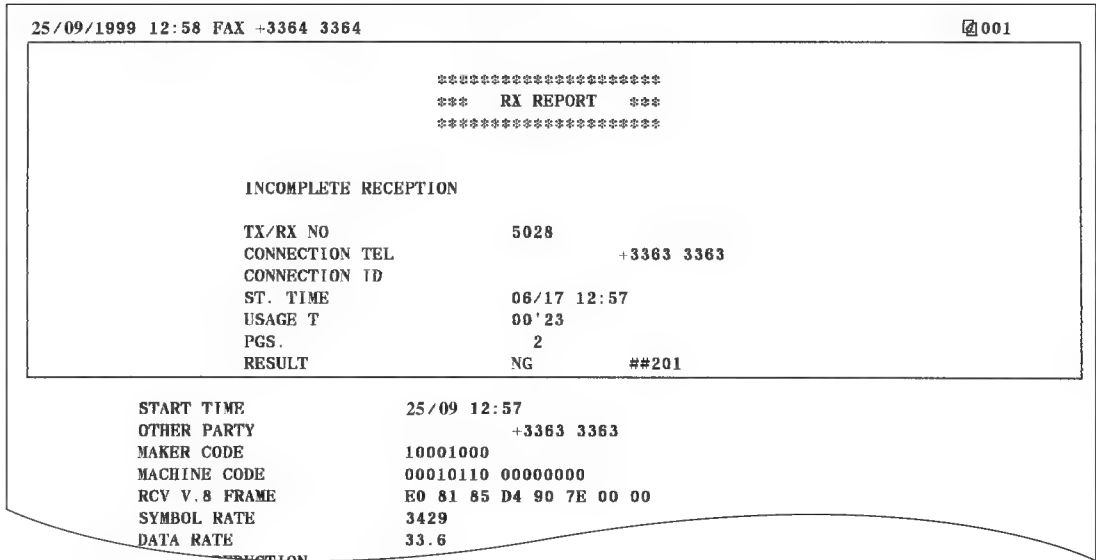


Figure 3-30 Service Error Activity Report (receiving)

- Header : OK, NG messages
- TX/RX NO : Indicates four digits of the transaction number
- CONNECTION TEL : Number sent from the other party or number dialled
(OTHER PARTY) (lower 20 digits)
- SUBADDRESS : Subaddress number sent from the other party
- CONNECTION ID : ID sent from the other party, if the other party is a Canon fax
- START TIME : Communication start date time (on 24-hour display)
- USAGE TIME : Communication time (in minutes and seconds)
- PAGES : Number of pages for which transmission was complete
(For details, *see User's manual*)
- RESULT : "NG" display with number of pages for which
transmission was fault, and service error code
- MAKER CODE : Maker code (For details, *see Chapter 4: 3. MAKER-CODE on
page 4-5*)
[1000 1000] Indicates a Canon fax
└─┬─┘
└─┘ lower nibble
└─┘ upper nibble
- RCV V.8 FRAME : Received V.8 protocol signal
- SYMBOL RATE : Symbol rate used for the primary channel
- DATA RATE : Transmission speed used for the primary channel
- TX LVL REDUCTION : 0 (Fixed)
- ERR ABCODE : Code output by the modem when an error occurred (Not used in the field)
- ERR SECTXB : Transmit status of the modem when an error occurred
(Not used in the field)
- ERR SECRXB : Receive status of the modem when an error occurred
(Not used in the field)
- RX/TX : Received/transmitted protocol signal
bit 1 to bit 96 of received/transmitted DIS, DCS, or DTS



NOTE

The V.8/V.34-related items (RCV V.8 FRAME to ERR SECRXB) are not printed on the Normal G3 Service Activity Report.

8.2 Connector Locations and Signal Descriptions

SCNT board (J1) ← → Contact sensor

J1		sensor	Signal name	Description
1	←	1	VOUT	Analog image data
2	—	2	AGND	Analog ground
2	—	3	AGND	Analog ground
3	→	4	+5VA	Logic drive voltage
4	→	5	VREF	Image signal reference voltage
5	→	6	SH	Image scan start signal
6	→	7	CLK	Contact sensor drive clock
7	→	8	VLED	LED drive voltage
8	—	9	GND	Frame ground
8	—	10	GND	LED ground
9	—	11	LGND	Frame ground
9	—	12	LGND	Frame ground

SCNT board (J2) ← → Power supply unit (J201)

J2		J201	Signal name	Description
1	—	16	GND	Ground
2	—	15	GND	Ground
3	←	14	+3.3V	Logic drive voltage
4	—	13	GND	Ground
5	←	12	+5V	Logic drive voltage
6	←	11	+5V	Logic drive voltage
7	—	10	GND	Ground
8	←	9	+12V	Logic drive voltage
9	—	8	GND	Ground
10	—	7	GND	Ground
11	—	6	GND	Ground
12	—	5	GND	Ground
13	←	4	+12V	Motor drive voltage
14	←	3	+12V	Motor drive voltage
15	←	2	+12V	Motor drive voltage
16	←	1	+12V	Motor drive voltage

SCNT board (J3) ← → PCNT board (J1)

J3		J1	Signal name	Description
1	—	1	GND	Ground
2	→	2	RLYD	Relay control signal
3	→	3	FSRD	Fixing heater control signal
4	→	4	DVFOT	Developing AC bias drive signal
5	→	5	TRCRNT	Transfer voltage feedback signal
6	→	6	TRPWM	Transfer positive voltage drive signal
7	→	7	TRNFOT	Transfer negative voltage drive signal
8	→	8	PRACC	Primary high-voltage (AC) drive signal
9	→	9	PRDCC	Primary high-voltage (DC) drive signal
10	→	10	DVDCC	Developing DC bias drive signal
11	←	11	POSNS	Paper detection signal
12	←	12	FSRTH	Fixing heater temperature detect signal
13	→	13	+5V	Logic drive voltage
14	→	14	+5V	Logic drive voltage
15	—	15	GND5	Ground
16	→	16	+12R	Relay drive voltage
17	—	17	GND12	Ground
18	—	18	GND12	Ground
19	→	19	+12HB	High voltage circuit drive voltage

SCNT board (J4) ← → Overflow sensor

J4		overflow	Signal name	Description
1	→	—	+5V	Overflow sensor drive voltage
2	—	—	GND	Ground
3	←	—	OVERFLOW	Overflow sensor detection signal

SCNT board (J7) ← → Speaker

J7		speaker	Signal name	Description
1	→	—	VO2	Speaker drive
2	→	—	VO1	Speaker drive

SCNT board (J8) ← → Paper sensor

J8		PS	Signal name	Description
1	→	—	+5V	Paper sensor drive voltage
2	—	—	GND	Ground
3	←	—	CPAPER	Cassette Paper detection signal

SCNT board (J10) ← → Cassette detection sensor

J10		Cassette	Signal name	Description
1	←	—	CAS	Cassette detection signal
2	—	—	GND	Ground

SCNT board (J403) ← → NCU board (J2)

J403		J2	Signal name	Description
1	—	6	AGND	Ground
2	→	5	+5V	Not used
3	→	4	+12V	Analog device, Relay drive voltage
4	—	3	AIN	Line monitor signal
5	→	2	TX	Telephone line transmission signal
6	←	1	RX	Telephone line reception signal

SCNT board (J404) ← → NCU board (J1)

J404		J1	Signal name	Description
1	—	23	DGND	Ground
2	←	22	BIT3	for future use
3	←	21	BIT2	for future use
4	←	20	BIT1	for future use
5	—	19	LPL2	Not used
6	—	18	LPL1	Not used
7	—	17	HOOK2	Not used
8	←	16	HOOK1	Telephone off hook detection signal
9	←	15	CIOR	CI signal 1 (CI1 or CI2)
10	←	14	CI2	CI detection signal 2
11	←	13	CI1	CI detection signal 1
12	—	12	LPRD	Not used
13	→	11	DCRD	DC relay control signal
14	→	10	CMLD	CML relay control signal
15	→	9	HRD	H relay control signal
16	→	8	PRD	P relay control signal
17	→	7	SRD	S relay control signal
18	—	6	AGND	Ground
19	—	5	N.C.	Not used
20	→	4	+12V	+12V
21	→	3	+3.3V	Logic drive signal (for ESS)
22	→	2	+3.3V	Logic drive signal
23	—	1	DGND	Ground

SCNT board (J405) ← → NCU board (J6)

J405		J6	Signal name	Description
1	—	14	OUT	Direct current of line detection signal
2	→	13	IPSEL1	HIC terminal impedance setting
3	→	12	IPSEL2	HIC terminal impedance setting
4	—	11	IPSEL3	HIC terminal impedance setting
5	→	10	DCSEL	DC registance switching when line is connected
6	←	9	DCLIM	DC current limitation control signal
7	←	8	RRD	R relay control signal
8	←	7	NOR	CI reception sensitivity setting signal when no ringing reception
9	←	6	C1	DC cut capacitor selection signal
10	←	5	C2	DC cut capacitor selection signal
11	←	4	CIST1	CI reception sensitivity setting signal
12	←	3	CIST2	CI reception sensitivity setting signal
13	←	2	AST	For Australian regulations signal
14	←	1	NZ	For N.Z. regulations signal

SCNT board (J406) ← → Document feed motor / OPCNT board (J1)

J406		motor/J1	Signal name	Description
1	→	—	RA	Phase A
2	→	—	RA*	Phase -A
3	→	—	RB	Phase B
4	→	—	RB*	Phase -B
5	→	6	+5V	Logic drive voltage
6	→	5	KIN	Status signal for keys, and sensors
7	→	4	XRST	Reset signal
8	←	3	KOUT	Control signal for LEDs, display
9	—	2	GND	Ground
10	→	1	KCLK	Clock signal

SCNT board (J501) ← → MCNT board (J502)

J501		J502	Signal name	Description
1	→	21	A*	Phase -A
2	→	20	A	Phase A
3	←	19	FSRTH	Fixing heater temperature detection signal
4	→	18	APUD	ASF Pickup solenoid drive signal
5	←	17	PISNS	Paper edge sensor detection signal
6	→	16	CPUD	Cassette pickup solenoid control signal
7	→	15	+5VA	Logic drive voltage
8	→	14	+5VA	Logic drive voltage
9	→	13	B	Phase B
10	←	12	APAPER	ASF paper detection signal
11	→	11	B*	Phase -B
12	—	10	GND5	Ground
13	—	9	GND5	Ground
14	←	8	TONOR	Toner detection signal
15	→	7	+12M	Main motor drive voltage
16	→	6	+5VB	Logic drive voltage
17	→	5	+12M	Main motor drive voltage
18	→	4	+12R	Front cover/cartridge sensor and solenoid drive voltage
19	—	3	GND12A	Ground
20	—	2	GND12A	Ground
21	←	1	+12HA	+12V after front cover/cartridge sensor

SCNT board (J502) ← → Laser scanner

J502		scanner	Signal name	Description
1	→	6	+5V	Logic drive voltage
2	→	5	APCSH	APC sample hold signal
3	→	4	LON*	Laser on signal
4	—	3	GND	Ground
5	→	2	VDOUT*	Laser drive signal
6	←	1	BDI*	Horizontal sync signal
7	→	5	+12V	Scanner motor drive voltage
8	←	4	SCNTAC	Scanner rotation rate monitor signal
9	—	3	GND12	Ground
10	→	2	SCNON*	Scanner motor drive signal
11	→	1	SCNCLK	Scanner reference clock signal

PCNT board (J2) ← → Fixing ass'y

J2		fixing	Signal name	Description
1	→	1	AC-H	AC 120V household current
2	→	2	AC-N	AC 120V household current

MCNT board (J501) ← → pickup solenoid

J501		solenoid	Signal name	Description
1	←	—	CPUD	Pickup solenoid drive signal
2	→	—	+12V	Pickup solenoid drive voltage

MCNT board (J503) ← → Front cover/cartridge sensor

J503		FS/CS	Signal name	Description
1	→	—	+12VHA	After front cover/cartridge sensor
2	—	—	GND	Ground
3	→	—	+12R	Before front cover/cartridge sensor

MCNT board (J504) ← → ASF sensor

J504		ASF	Signal name	Description
1	→	—	APAPER	ASF paper detection sensor drive voltage
2	—	—	GND	Ground
3	←	—	POW1	ASF paper detection signal

MCNT board (J505) ← → Tonor sensor

J505		Tonor	Signal name	Description
1	—	—	GND	Ground
2	←	—	TONOR	Remaining tonor detection signal
3	→	—	+5V	Tonor sensor drive voltage

MCNT board (J507) ← → Main motor/Paper edge sensor/Fixing ass'y

J507		motor	Signal name	Description
1	→	—	WA	Phase A
2	→	—	WA*	Phase -A
3	→	—	WB	Phase B
4	→	—	WB*	Phase -B
5	→	—	POW2	Paper pickup detection sensor drive voltage
6	—	—	GND	Ground
7	←	—	PISNS	Paper pickup detection signal
8	←	—	FSRTH	Fixing heater temperature detection signal
9	—	—	GND	Ground

MCNT board (J508) ← → Pickup solenoid

J508		solenoid	Signal name	Description
1	←	—	APUD	ASF Pickup solenoid drive signal
2	→	—	+12V	Pickup solenoid drive voltage

NCU board (J4) ← → Power Supply unit (J203)

J4		J203	Signal name	Description
1	←	2	VH	For telephone offhook detection during communication
2	—	1	VH-GND	Ground

NCU board (J5) ← → to Grounding wire

J5		G.wire	Signal name	Description
1	—	—	ARG	Ground (arrester)

NCU board (J7) ← → Modular board (J230)

J7		J230	Signal name	Description
1	—	1	T2	Line from L1, L2 to wall socket via the fax
2	—	2	W	Line from handset terminal T11 in priority mode (handset/extension telephone). Goes into T21 of the extension telephone.
3	—	3	L2	Telephone line
4	—	4	L1	Telephone line
5	—	5	R	Earth signal for PBX
6	—	6	T1	Line from L1, L2 to wall socket via the fax

NCU board (J8) ← → Modular board (J231)

J8		J231	Signal name	Description
1	—	9	A	Line from handset terminal T12 in priority mode (handset/extension telephone). Goes into T22 of the extension telephone.
2	—	8	W	Line from handset terminal T11 in priority mode (handset/extension telephone). Goes into T21 of the extension telephone.
3	—	7	T12	Handset terminal telephone line via the fax
4	—	6	T11	Handset terminal telephone line via the fax
5	—	5	R	Earth signal for PBX

NCU board (J9) ← → Modular board (J231)

J9		J231	Signal name	Description
1	—	4	W	Line from handset terminal T11 in priority mode (handset/extension telephone). Goes into T21 of the extension telephone.
2	—	3	T22	Extension telephone terminal telephone line via the fax.
3	—	2	T21	Extension telephone terminal telephone line via the fax.
4	—	1	R	Earth signal for PBX

Power supply unit (J102) ← → PCNT board (TB1)

J102		TB1	Signal name	Description
1	→	2	AC-N	230V household current
2	→	1	AC-H	230V household current

Modular board (J1) ← → Line

J1		Line	Signal name	Description
1	—	—	T2	Not used
2	—	—	W	Not used
3	—	—	L2	Telephone line
4	—	—	L1	Telephone line
5	—	—	R	Not used
6	—	—	T1	Not used

Modular board (J2) ← → extension telephone

J2		EXT.Tel	Signal name	Description
1	—	—	—	Not used
2	—	—	W	Not used
3	—	—	T2	Extension telephone terminal telephone line via the fax
4	—	—	T1	Extension telephone terminal telephone line via the fax
5	—	—	R	Not used
6	—	—	—	Not used

Modular board (J3) ← → handset

J3		handset	Signal name	Description
1	—	—	A	Not used
2	—	—	W	Not used
3	—	—	T2	Handset terminal telephone line via the fax
4	—	—	T1	Handset terminal telephone line via the fax
5	—	—	R	Not used
6	—	—	—	Not used

SCNT board (J9) ← → INTERFACE board (J4)

J9		J4	Signal name	Description
1	—	20	GND	Ground
2	—	19	GND	Ground
3	←	18	HSELIN	Host drive signal
4	←	17	HSTB	Host drive signal
5	→	16	+5V	Peripheral power
6	—	15	HPD0	Data bus
7	→	14	HXFALT	Peripheral drive signal
8	—	13	HPD1	Data bus
9	←	12	HAUTOFD	Host drive signal
10	—	11	HPD2	Data bus
11	←	10	HINIT	Host drive signal
12	—	9	HPD3	Data bus
13	→	8	HSELECT	Peripheral drive signal
14	—	7	HPD4	Data bus
15	→	6	HERROR	Peripheral drive signal
16	—	5	HPD5	Data bus
17	→	4	HBUSY	Peripheral drive signal
18	—	3	HPD6	Data bus
19	→	2	HXACK	Peripheral drive signal
20	—	1	HPD7	Data bus

INTERFACE board (J2) ← → to Host parallel interface

J2		Host	Signal name	Description
1	—	—	HSTB	STROBE*1
2	—	—	GND	Ground
3	—	—	CD0	Data bus
4	—	—	GND	Ground
5	—	—	CD1	Data bus
6	—	—	GND	Ground
7	—	—	CD2	Data bus
8	—	—	GND	Ground
9	—	—	CD3	Data bus
10	—	—	GND	Ground
11	—	—	CD4	Data bus
12	—	—	GND	Ground
13	—	—	CD5	Data bus
14	—	—	GND	Ground
15	—	—	CD6	Data bus
16	—	—	GND	Ground
17	—	—	CD7	Data bus
18	—	—	GND	Ground
19	—	—	nACK	*2
20	—	—	GND	Ground
21	—	—	BUSY	*3
22	—	—	GND	Ground
23	—	—	PERROR	P.E.*4
24	—	—	GND	Ground
25	—	—	SELECT	SELECT*5
26	—	—	INIT	*7
27	—	—	nAUTOFD	AUTO FEED XT*6
28	—	—	nFAULT	Printer interrupt signal
29	—	—	N.C.	Not used
30	—	—	GND	Ground
31	—	—	GND	Ground
32	—	—	N.C.	Not used
33	—	—	GND	Ground
34	—	—	+5V*2	Peripheral power
35	—	—	+5V*2	Peripheral power
36	—	—	nSELCTIN	SLCT IN

*1 Data transmission synchronizing signal (Forward direction)

*2 Data transmission synchronizing signal (Reverse direction)

*3 Data reception completion signal (Forward direction)

*4 Data transmission direction change response signal

*5 Extension request response signal

*6 Data reception completion signal (Reverse direction)

*7 Data transmission direction change request signal

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Chapter 4

Appendix

1. INSTALLING THE FAX-L350



REFERENCE

This machine has been designed for user installation. Therefore, this manual contains only an outline description of the procedures. For details of the installation, see the *USER'S GUIDE*.

1.1 Setting Up

- Choosing a Location for Your FAX-L350
Before you set up Your FAX-L350, make sure you have read cautions of setting up FAX-L350.
- Unpacking Your FAX-L350
Check that nothing is missing when the unit is unpacked.
- Assembling the FAX-L350
- Making Connections
Connect the telephone line, a telephone, an answering machine or the power cord.
- **Service Data Setting (#5 TYPE)**
Set the country type to suit the communication standard used in your country.
- The Toner Cartridge
- Loading Recording Paper
Set paper in the auto sheet feeder and cassette, set the size of paper that is to be used.
- Setting the telephone line type
Select the correct telephone line type in **TEL LINE TYPE**.
- Entering user information
Enter user information, such as **DATE & TIME, UNIT TELEPHONE #, UNIT NAME**.

1.2 Checking Operations

- Copy operation
Make a copy, and check that the operation is normal.
- Communication test
Transmit to, and receive from other facsimiles, and check that images are sent normally when transmitted, and are printed normally when received.



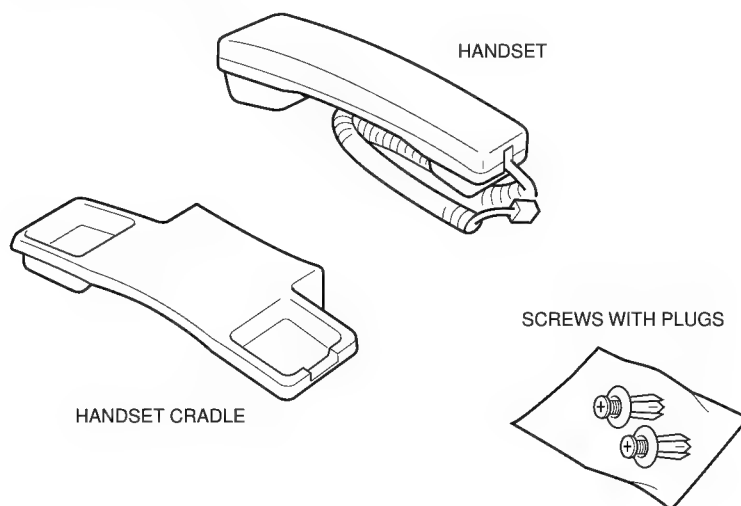
What to do when trouble occurs

Very rarely, during use, the display may go out, all the buttons may stop working, or some other trouble may occur because of strong electrical noise or a large amount of static. If such trouble occurs, initialize the RAM. During installation, we recommend that you perform the all clear operation after the power on. Refer to *NOTE: "ALL clear" when nothing works on Page 1-40*.

2. OPTION

2.1 HANDSET KIT

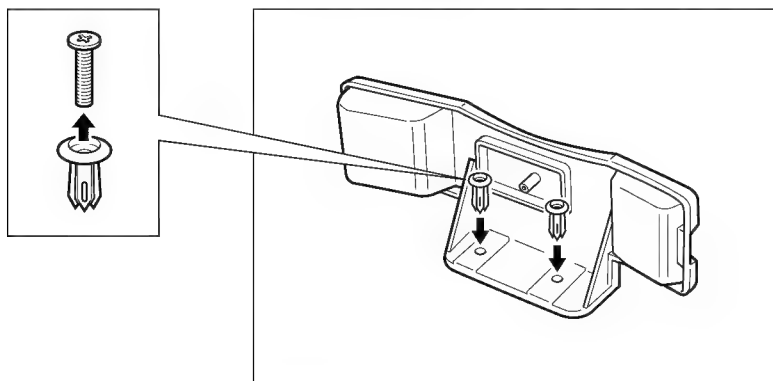
The optional handset is available. Make sure you have the following items. If anything is damaged or missing, notify your Canon dealer immediately.



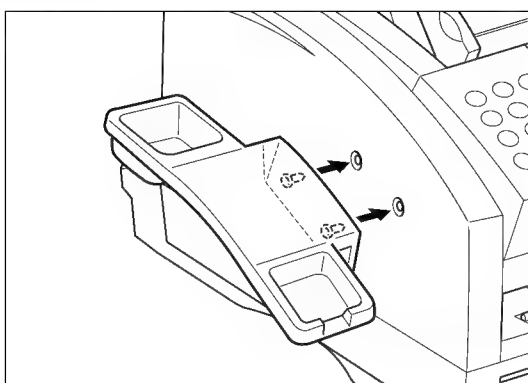
Attaching the Handset to Your Unit

To attach the handset to your unit, follow these steps:

1. Remove the screws from the plugs and insert the plugs into the holes on the handset cradle.



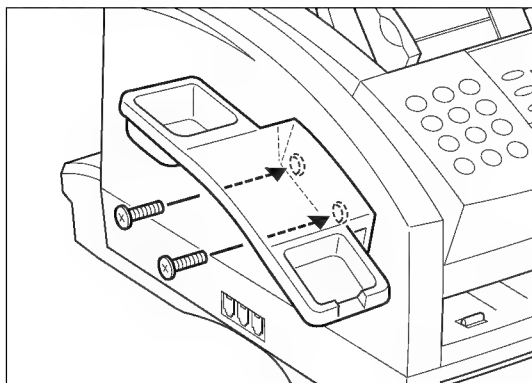
2. Insert the plugs with the handset cradle in the holes on the unit.



Note

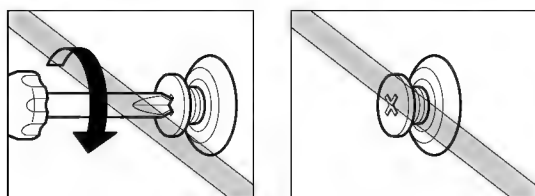
If you have difficulty inserting the plugs, turn the unit so that the left side is facing you and the right side is placed against a wall. This will allow you to insert the plugs without the unit moving.


3. Insert the screws into the plugs and push them in with your finger.

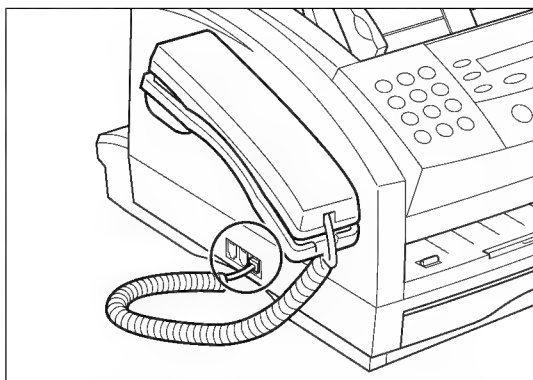
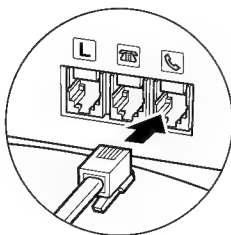


Note

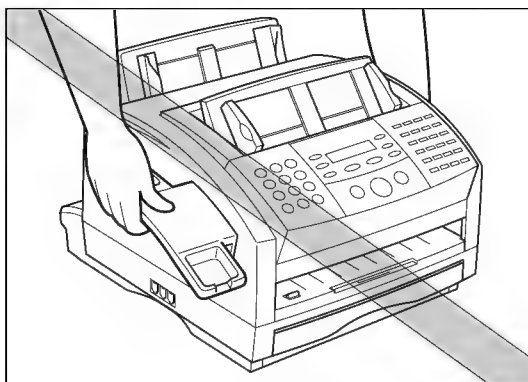
- ☐ If you cannot push the screws in with your finger, use a Phillips screwdriver to push them in. (Do not screw them in as the screws may break.)
- ☐ Make sure the screws are inserted all the way into the plugs.



4. Connect the handset cord to the input jack marked  at the left side of the unit.



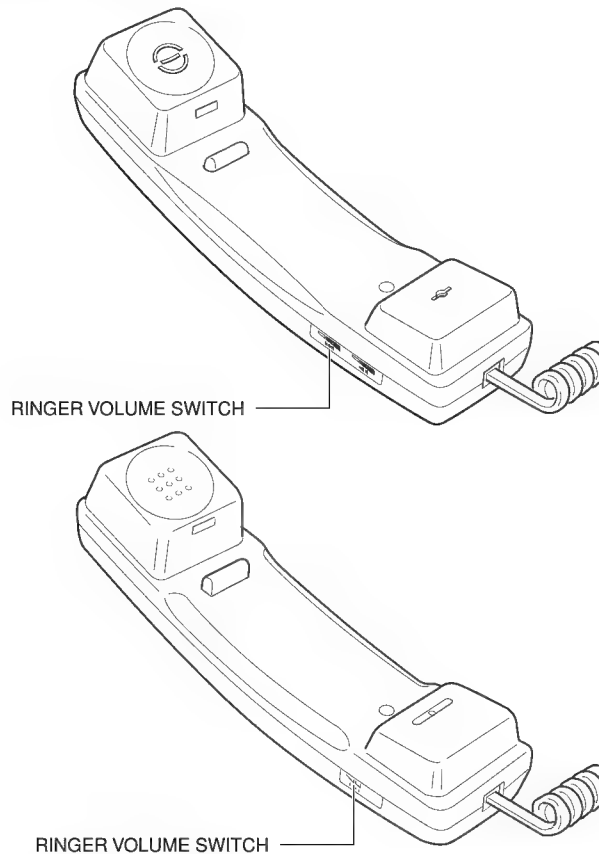
When carrying the unit, do not lift it by the handset cradle as it may break.



If you need to remove the handset cradle after it is installed, use a small Phillips screwdriver to remove the two screws.

Adjusting the Ringer Switch

The ringer volume switch allows you to select the ring volume of the handset for incoming calls. Use a pen or other pointed object to adjust the switch to high or low.



- ❑ Although there are two types of optional handsets, the functions and performance are identical. The type of handsets you can connect is different depending on the area you use your FAX-L350.



Note

Ringer Equivalence Number (R.E.N.) (UK only)

Your British Telecom line has a maximum R.E.N. capacity of 4. Your Canon unit has a R.E.N. value of 1 (unless otherwise stated), and this handset also has a R.E.N. value of 1. You can therefore use additional equipment with a total R.E.N. value of up to 2.

If the R.E.N. value exceeds 4, the ringer volume will be reduced and one or more of the connected equipment may not function.

Maintaining Your Handset

Follow these guidelines to maintain your handset in top working condition.

- ☐ Do not leave your handset exposed to direct sunlight.
- ☐ Do not install your handset in hot or humid conditions.
- ☐ Do not spray aerosol polishes on your handset as they may enter the holes on your handset and cause damage.
- ☐ Use a damp cloth to clean your handset.

3. USER DATA FLOW

3.1 User Data Flow (by Operation Panel)

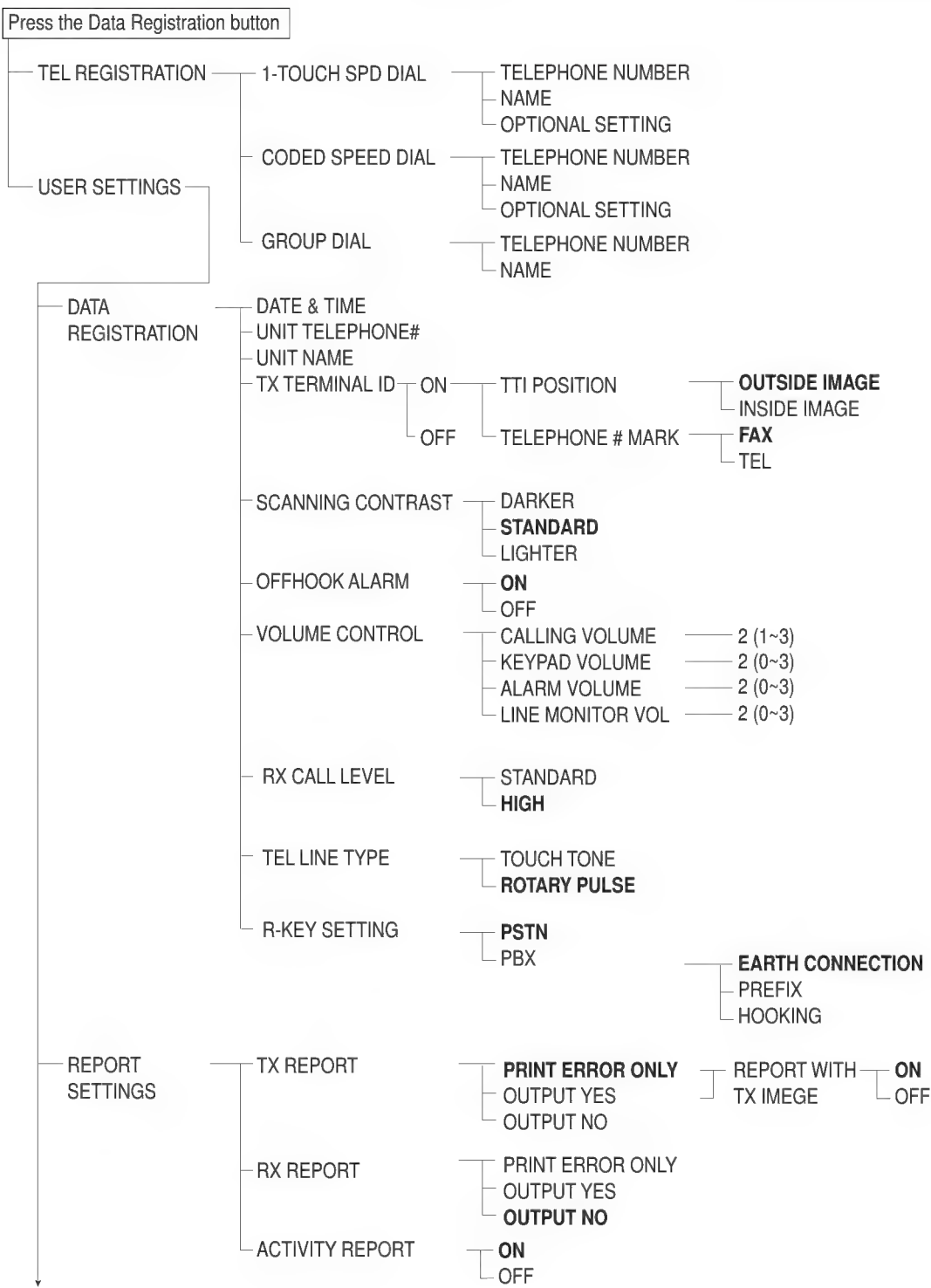


Figure 4-1 User Data Flow (1/3)

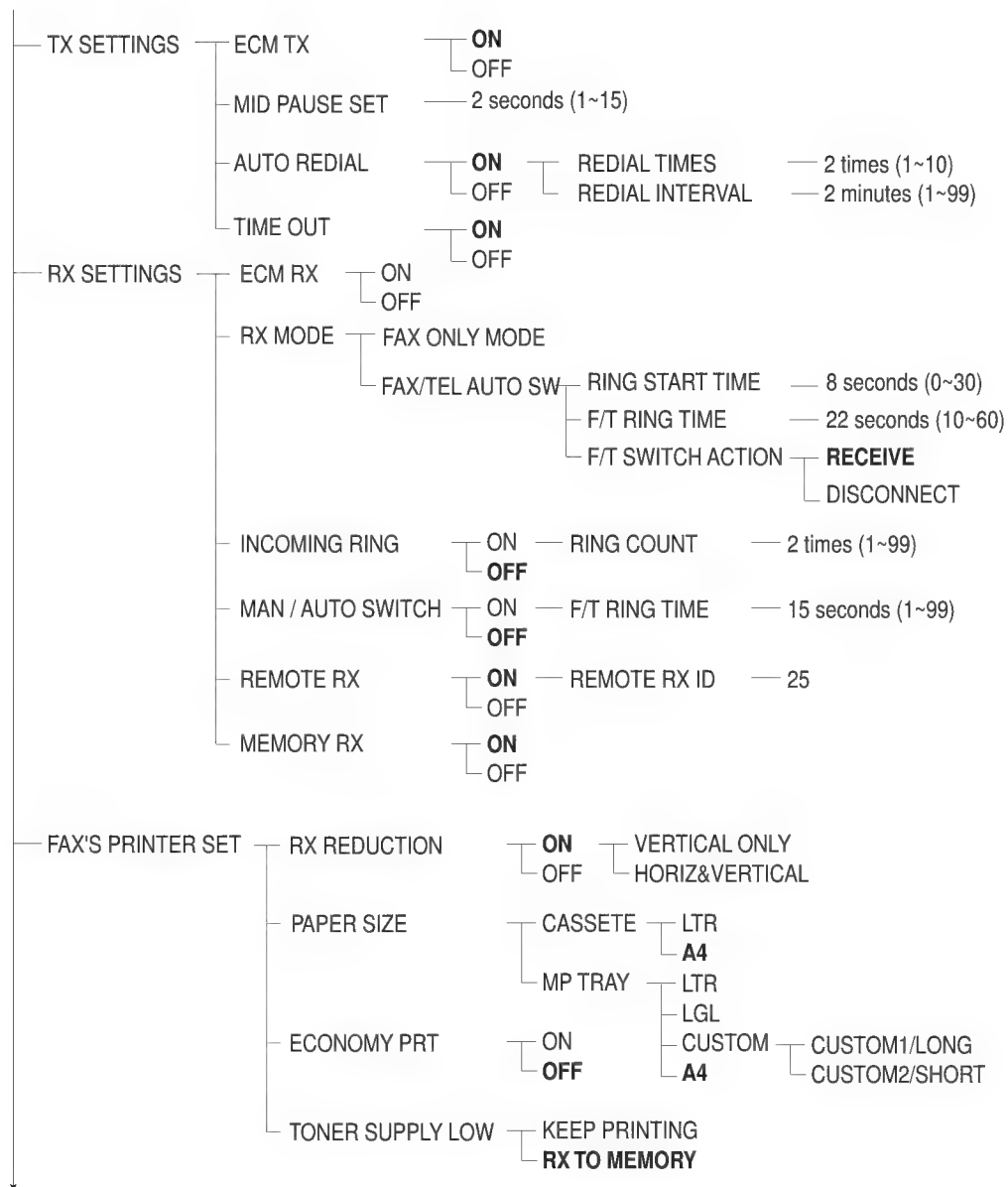


Figure 4-2 User Data Flow (2/3)

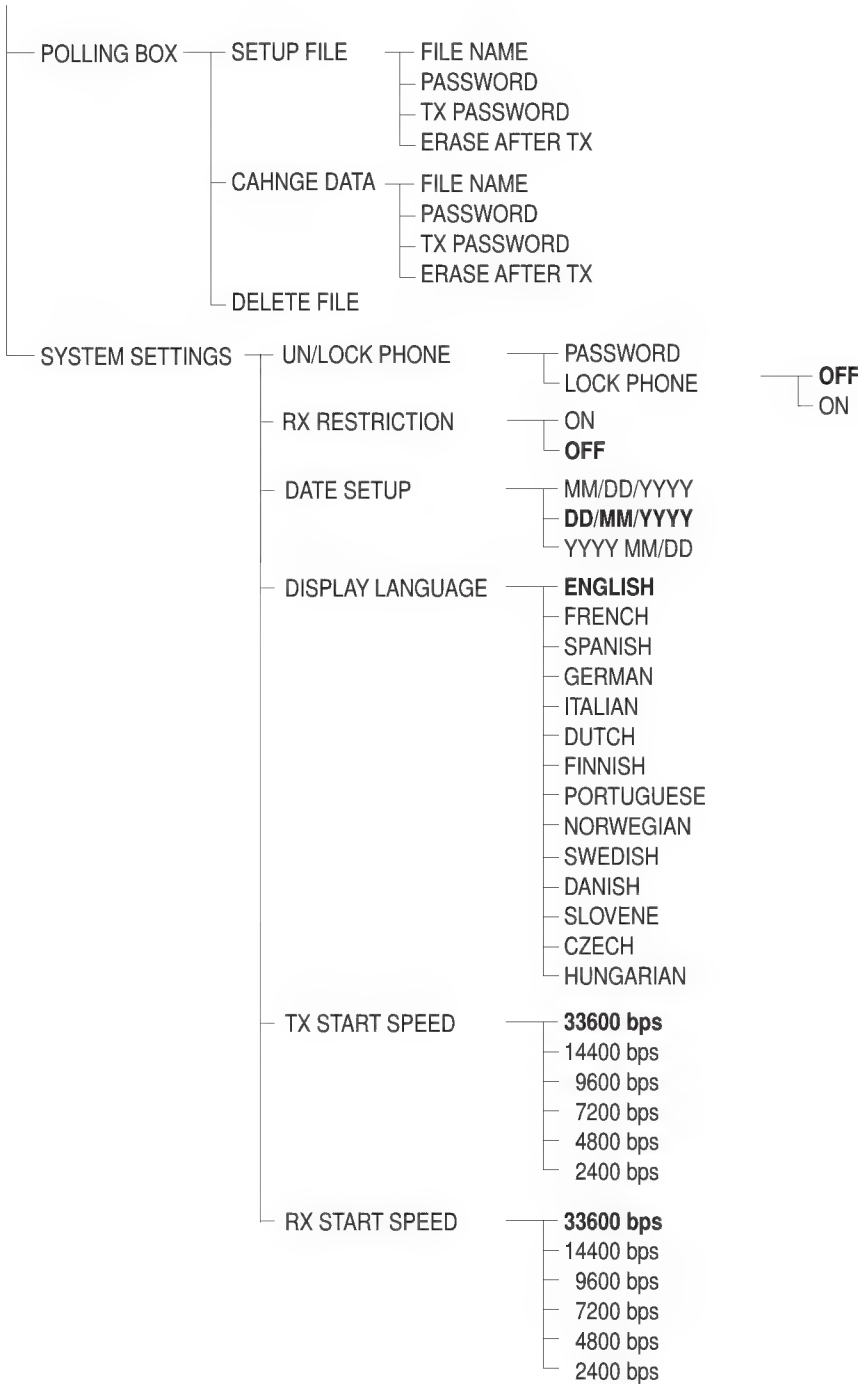


Figure 4-3 User Data Flow (3/3)

4. MAKER CODE

The 1-byte maker code displayed on the error dump list corresponds to the list of makers shown below.



REFERENCE

For a sample of a dump list containing maker codes, see pages 3-70~3-74.

		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Upper nibble	Hexadecimal notation Binary notation	0 0000	0 0001	0 0010	0 0011	0 0100	0 0101	0 0110	0 0111	0 1000	0 1001	0 1010	0 1011	0 1100	0 1101	0 1110	0 1111
		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
	0 0000	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	1 0001	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	2 0010	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	3 0011	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	4 0100	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△
	5 0101	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□
	6 0110	MASTER NET				KONICA		MITA				BROTHER					
	7 0111																
	8 1000	ANRITSU		IWASAKI (DEX)				CASIO		Canon		SANYO		SHARP		TAMURA	
	9 1001	TOSHIBA		NEC		JRC		HITACHI		FUJIXEROX		FUJITSU		MATSUSHITA ELECTRIC		PANASONIC (MATSUSHITA)	
	A 1010	MITSUBISHI		MURATA		RICOH		OMRON		TOYO		NITTJSUKO		MATSUSHITA COMMUNICATION		TEC	
	B 1011	LOGIC SYSTEM INTER.		OKURA		SONY		HITACHI TELECOM TECH.		HITACHI SOFT WARE		KUONI		IBM JAPAN		SILVER	
	C 1100																
	D 1101																
	E 1110																
	F 1111																

○ : National organization △ : NTT □ : KDD

Figure 4-4 Maker Code

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Printed on paper that
contains 60% reused paper.

Canon

FAX-L350

PARTS CATALOG

REVISION 0

FAX-L350	H12-1573	230V	EC
FAX-L350	H12-1574	230V	UK
FAX-L350	H12-1575	230V	GER
FAX-L350	H12-1577	230V	FRN
FAX-L350	H12-1578	230V	AUS
FAX-L350	H12-1579	230V	AE
HANDSET KIT E3	H12-3603		
HANDSET KIT U3	H12-3614		

Canon

DEC. 1999

HY8-30AJ-000

Application

This manual has been issued by Canon Inc. for qualified persons to learn technical theory, installation, maintenance, and repair of products. This manual covers all localities where the products are sold. For this reason, there may be information in this manual that does not apply to your locality.

Corrections

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DTP System

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I. CONTENTS

1. ILLUSTRATION INDEX
2. PARTS LAYOUT & PARTS LIST
3. TOOL
4. LUBRICATIONS
5. GUIDE TO REPLACEMENT
6. NUMERICAL INDEX

II. ABOUT THIS MANUAL

1. ILLUSTRATION INDEX

For illustration index, the parts layout illustrations in this parts catalog are listed in abbreviated form in order of illustration number to identify the pages they appear on. To find an illustration of a part, see the ILLUSTRATION INDEX.

2. PARTS LAYOUT & PARTS LIST

Parts layout illustration

a) Parts search

Find a part from the parts layout illustration and find its key number from the parts list to identify the part number and name.

Further, screws, nuts, washers, grip rings, pins and spacers are mentioned in the parts list.

Note: If parts have the same or similar shape but different specifications, their key number is assigned to several part numbers and names in the parts list.

b) Parts replacement procedure

The parts layout illustrations are arranged according to the disassembly procedure of the product. When a unit in the illustration can be disassemble further, a reference illustration page of the disassembly will be included.

Parts where grease is to be applied are displayed as "Lubrication". When replacing parts, or if grease has accidentally been wiped off, refer to "4". (Lubrications), and reapply the grease.

The parts require carefully work are marked "See page 5-x". So refer to the corresponded page "5". (GUIDE TO REPLACEMENT).

The letters (A , B etc.) in the illustration indicate the connection locations of cables and screws.

Parts list

a) FIGURE & KEY No.

The FIGURE & KEY No. column corresponds to the key numbers assigned to the parts in the parts layout illustration.

It also corresponds to the part locations printed on the PC board.

b) PART NUMBER

The PART NUMBER column gives the part numbers corresponding to the key numbers. To order a part, indicate the part number clearly.

Note: Parts marked NPN are not service parts.

c) RANK

The service parts with N in the RANK column are order parts.

d) QTY

The QTY column gives the number of parts in the corresponding components layout illustration.

e) DESCRIPTION

The DESCRIPTION column gives the part names in English.

To order a part, indicate the part name, too.

3. TOOL

This is a list of tools used for servicing products.

4. LUBRICATIONS

Where grease is to be applied in order to allow moving parts to work smoothly, and to increase conductivity, the type and amount of grease to be used will be mentioned.

5. GUIDE TO REPLACEMENT

Explains the special cares and cautions for the parts replacement.

6. NUMERICAL INDEX

All the parts listed in this parts catalog are arranged in order of part number. You can identify part locations and names from the NUMERICAL INDEX.

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1. ILLUSTRATION INDEX

FIGURE 1

FAX-L350
PACKAGE CONTENTS

See Page
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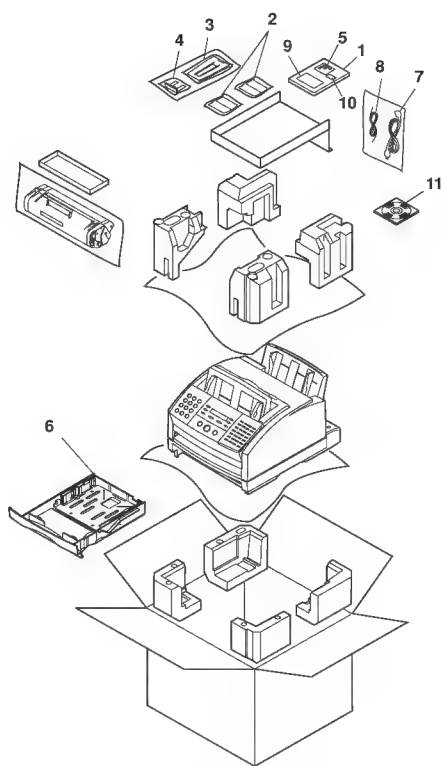


FIGURE 2

COVERS & TRAY ASS'Y

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2-3

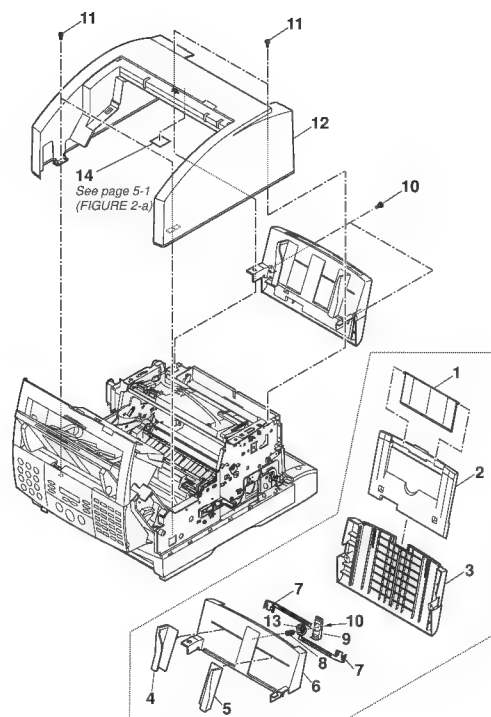


FIGURE 3

READING ASS'Y &
CIRCUIT BOARDS

See Page
2-5

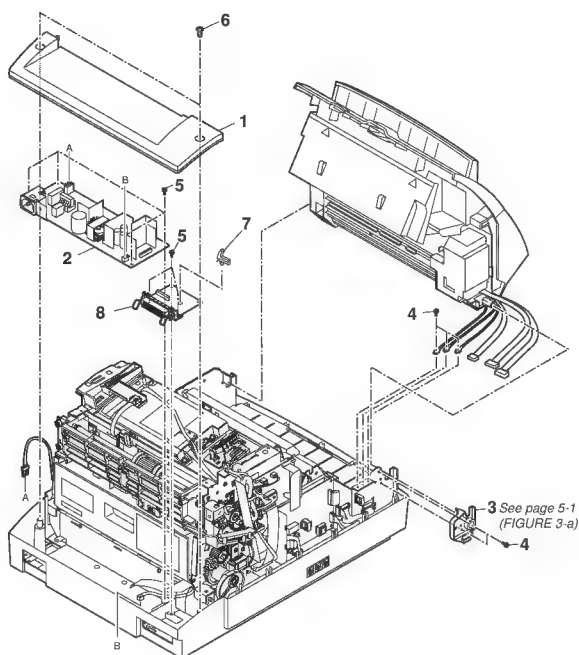


FIGURE 4

CIRCUIT BOARDS &
COVERS

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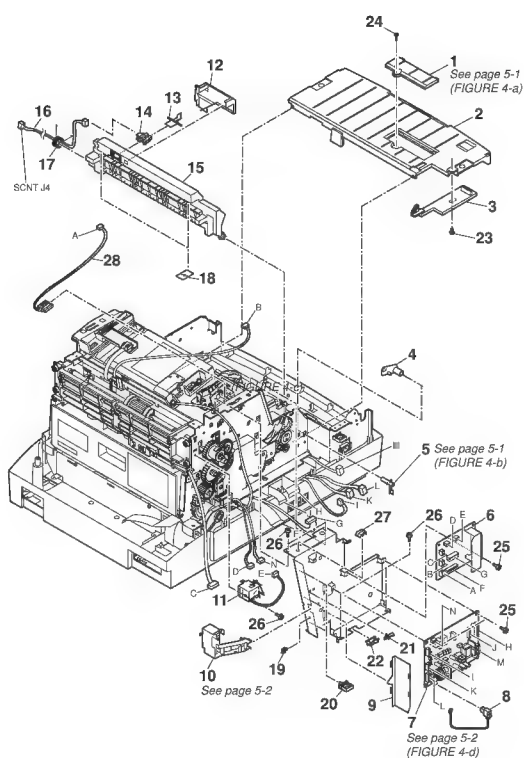


FIGURE 5 COVERS & MAIN FRAME

See Page
2-9

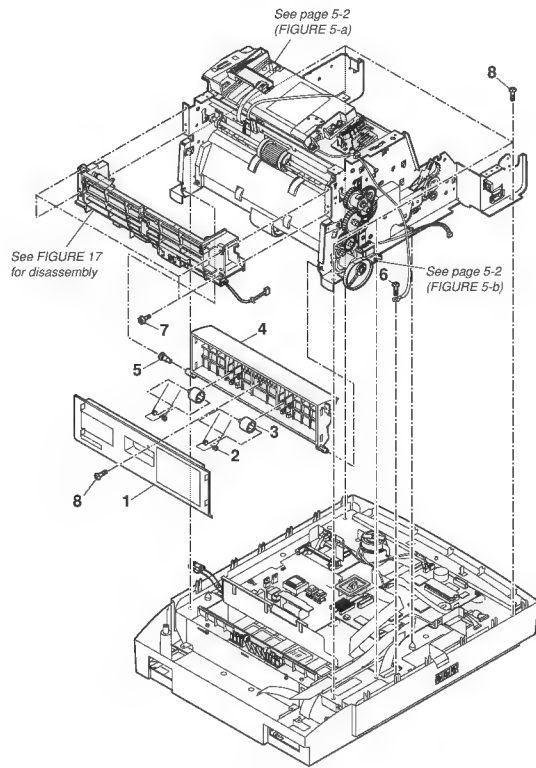


FIGURE 6 CIRCUIT BOARDS

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2-11

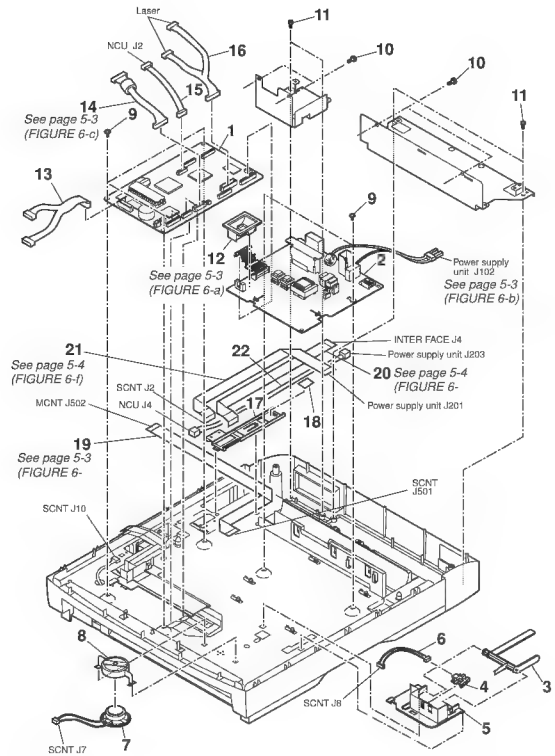


FIGURE 7 CIRCUIT BOARD & PAPER PICKUP SECTION

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2-13

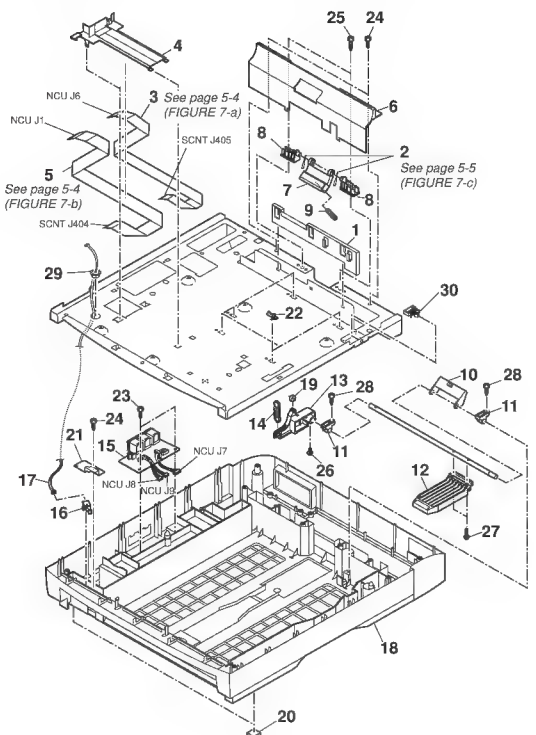


FIGURE 8 READING ASS'Y 1

See Page
2-15

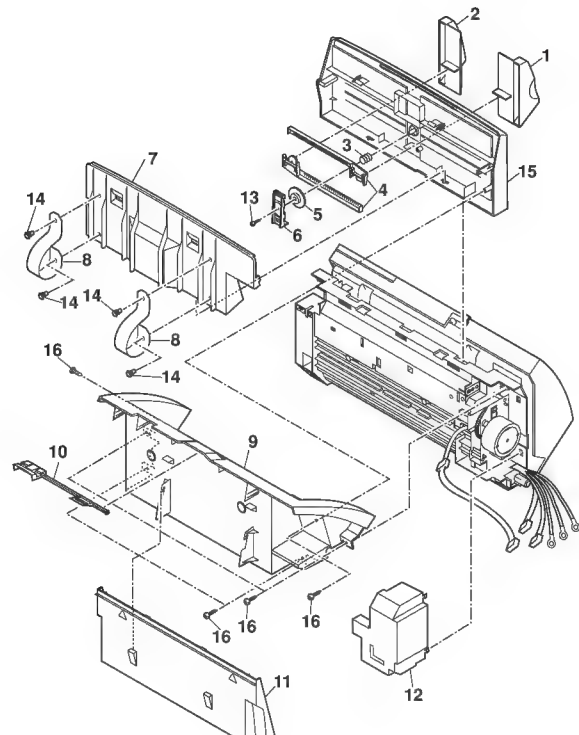


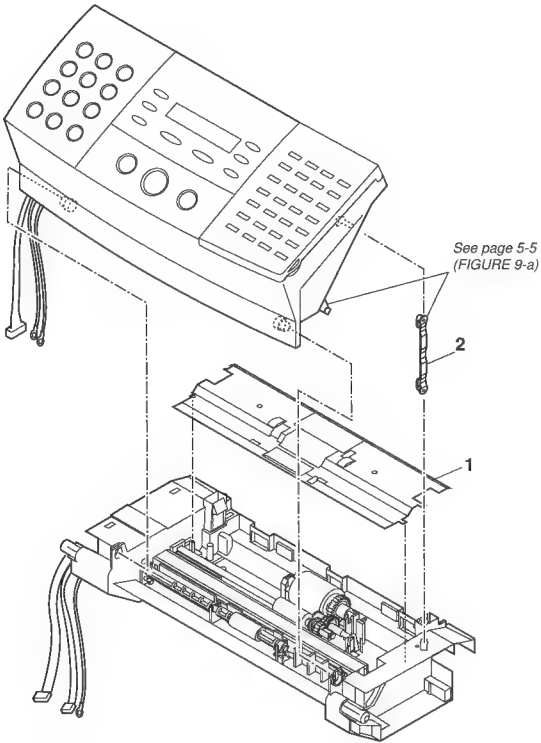
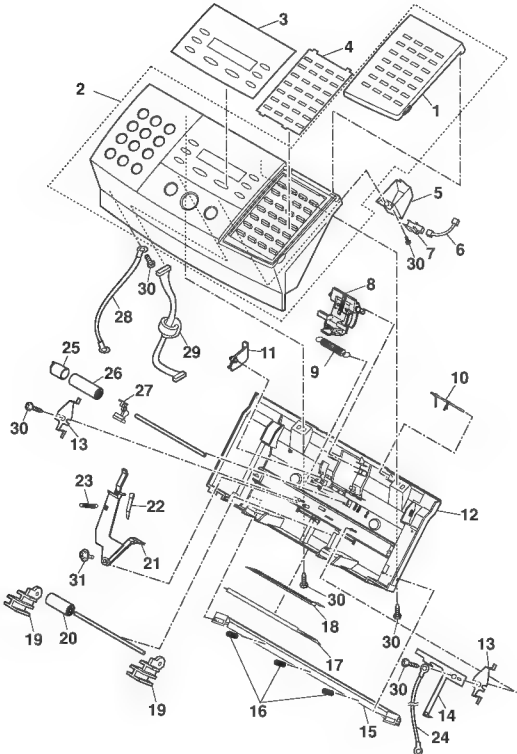
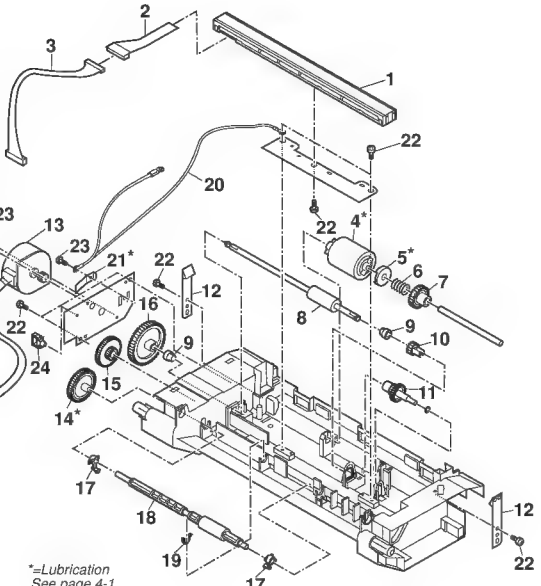
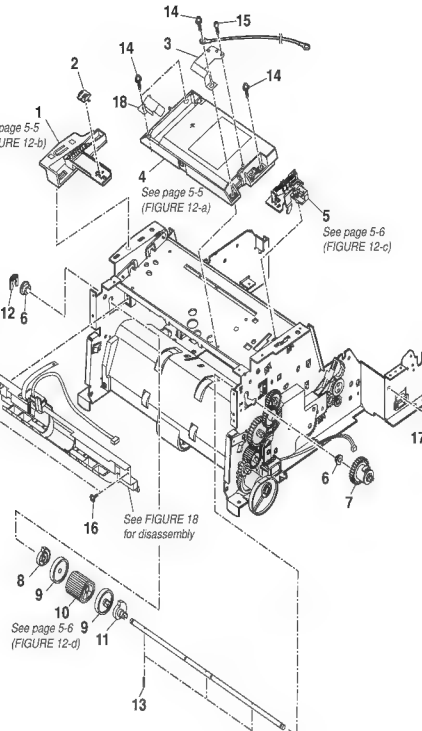
FIGURE 9 READING ASS'Y 2	See Page 2-17	FIGURE 10 OPERATION PANEL ASS'Y & ADF UPPER	See Page 2-19
 <p>See page 5-5 (FIGURE 9-a)</p>	 <p>See page 5-5 (FIGURE 9-a)</p>		
FIGURE 11 ADF LOWER	See Page 2-21	FIGURE 12 SCANNER ASS'Y	See Page 2-23
 <p>See page 5-5 (FIGURE 12-a)</p> <p>*=Lubrication See page 4-1</p>	 <p>See page 5-5 (FIGURE 12-a)</p> <p>See page 5-6 (FIGURE 12-c)</p> <p>See page 5-6 (FIGURE 12-d)</p> <p>See FIGURE 18 for disassembly</p>		

FIGURE 13 PAPER FEED SECTION

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2-25

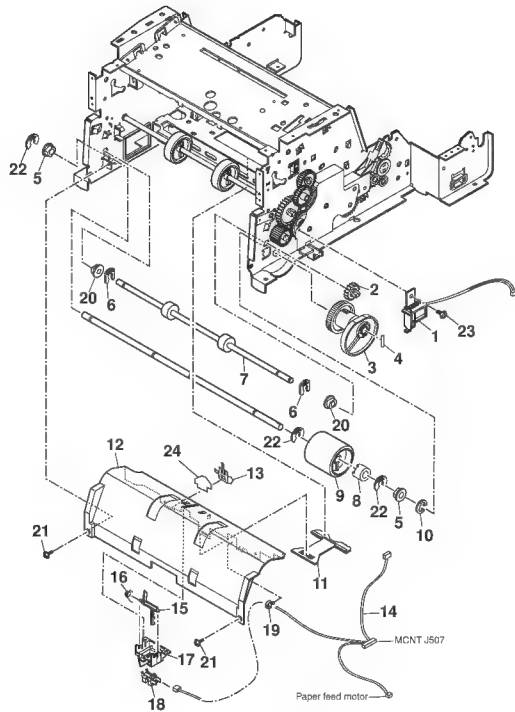


FIGURE 14 DRIVE GEARS

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2-27

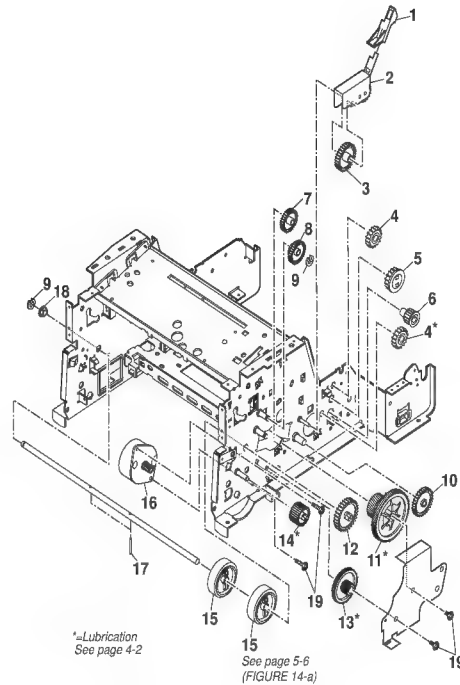


FIGURE 15 FIXING SECTION 1

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2-29

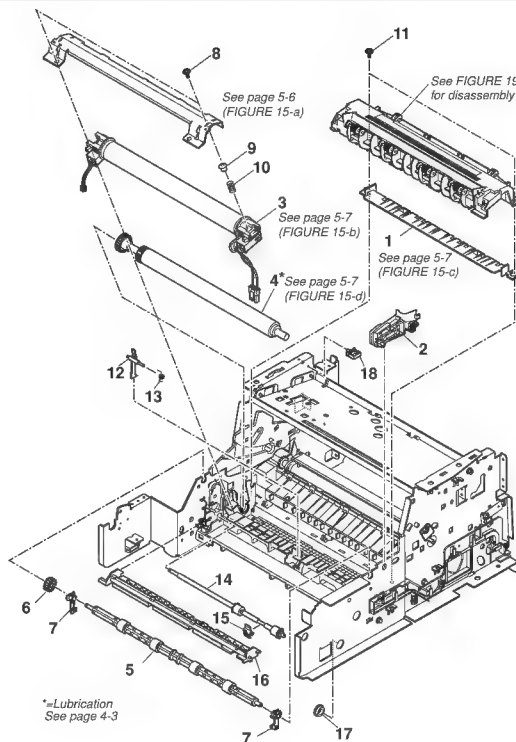


FIGURE 16 FIXING SECTION 2

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2-31

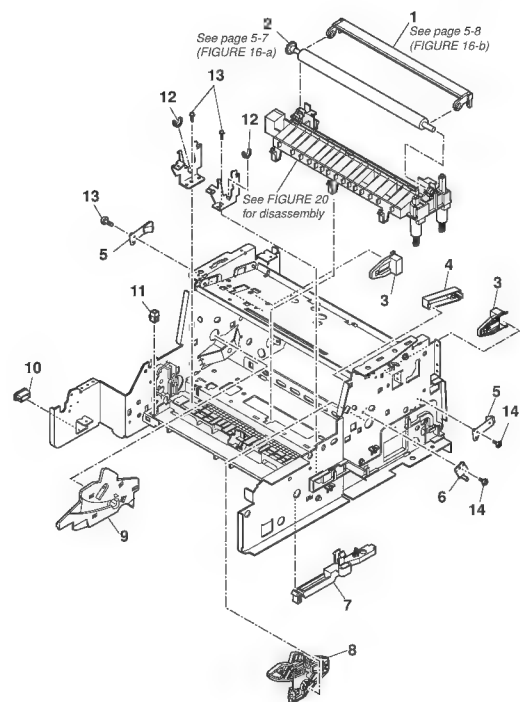


FIGURE 17 ASF ASS'Y

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2-33

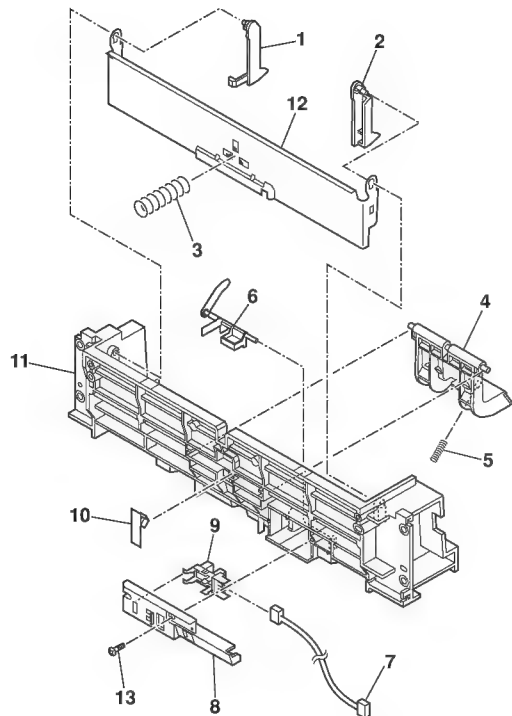


FIGURE 18 TONER DETECTION ASS'Y

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2-35

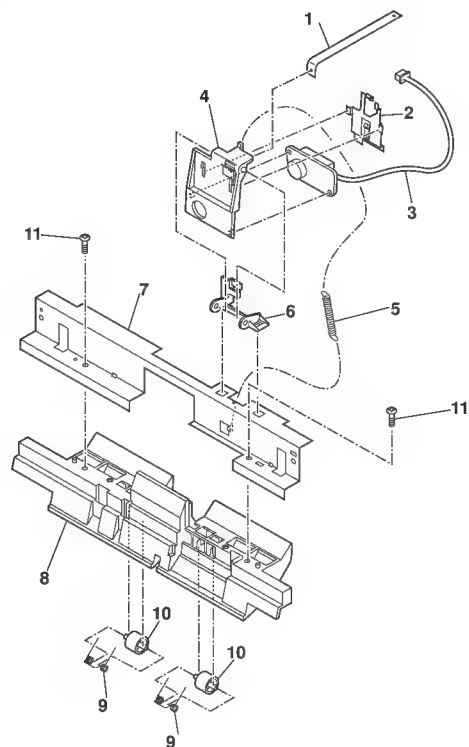


FIGURE 19 DELIEVRY ASS'Y

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2-37

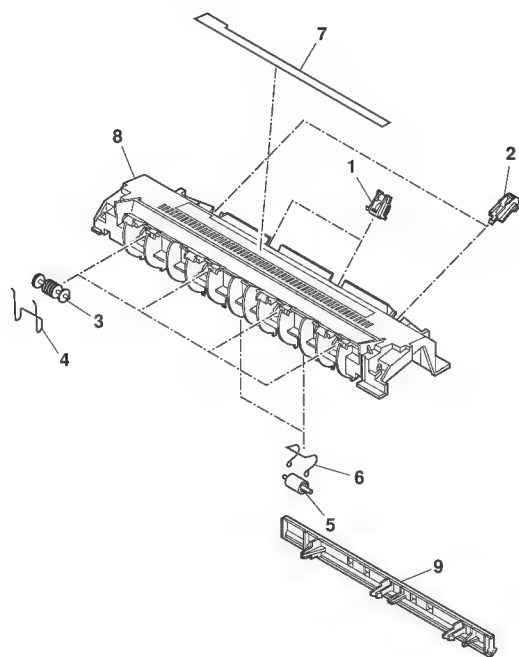


FIGURE 20 TRANSFER BLOCK ASS'Y

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2-39

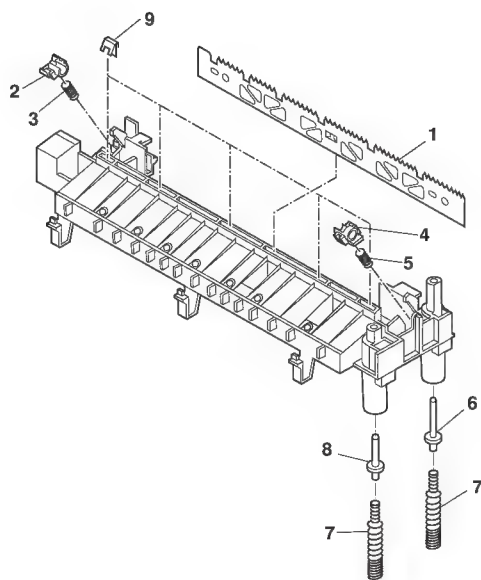


FIGURE 21 CASSETTE ASS'Y

See Page
2-41

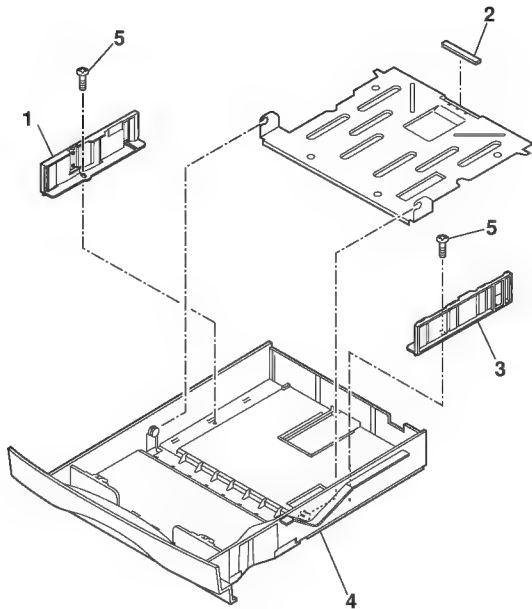


FIGURE 22 SCNT BOARD ASS'Y

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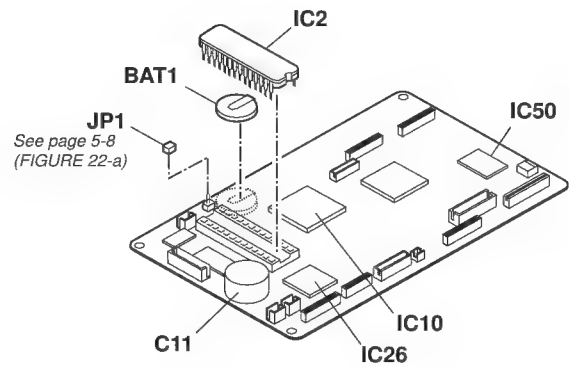


FIGURE 23 PCNT BOARD ASS'Y

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2-45

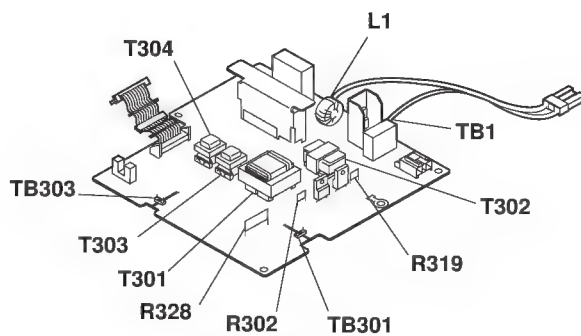


FIGURE 24 NCU BOARD ASS'Y

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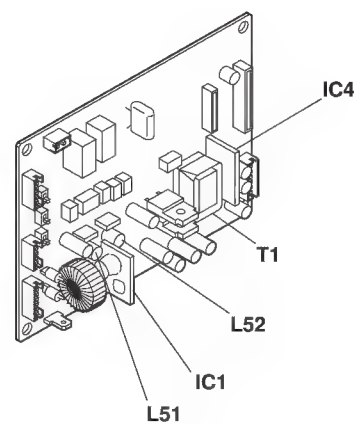


FIGURE 25 MODULAR BOARD ASS'Y

See Page 2-49

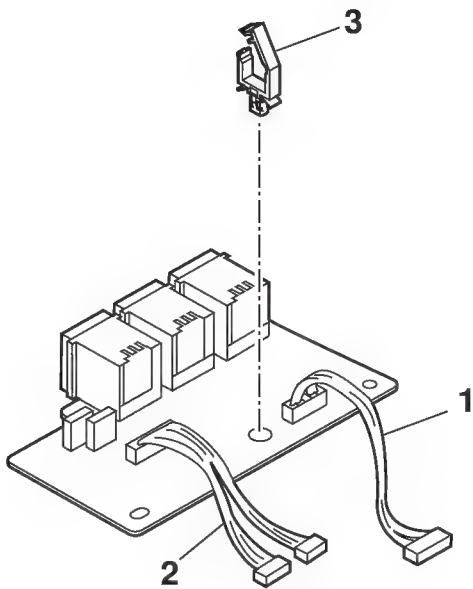


FIGURE 26 HANDSET KIT E3
HANDSET KIT U3

See Page 2-51

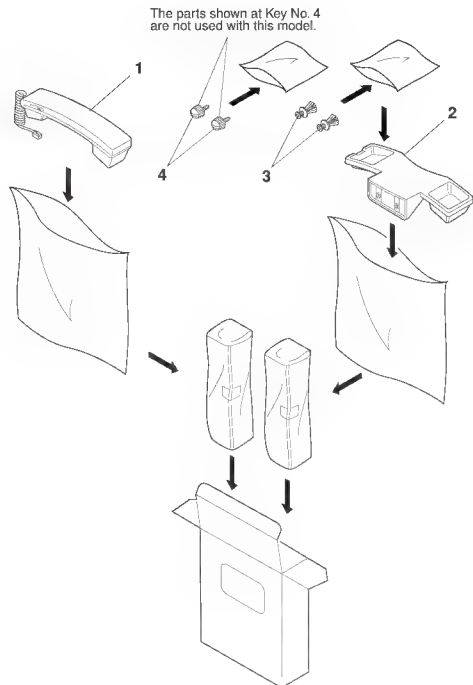
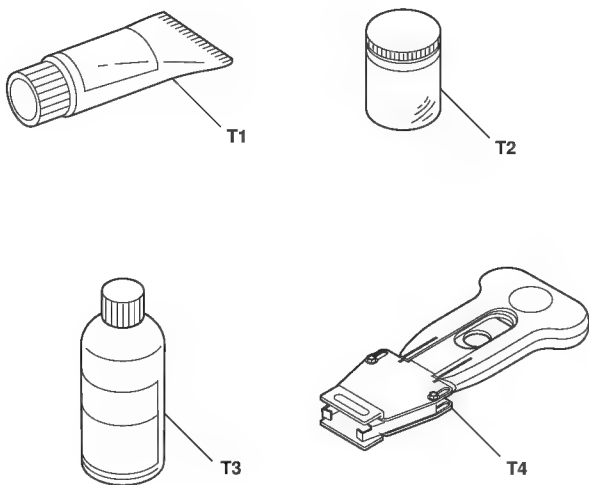


FIGURE 27 TOOLS

See Page 3-1



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2. PARTS LAYOUT & PARTS LIST

FIGURE 1 FAX-L350 PACKAGE CONTENTS

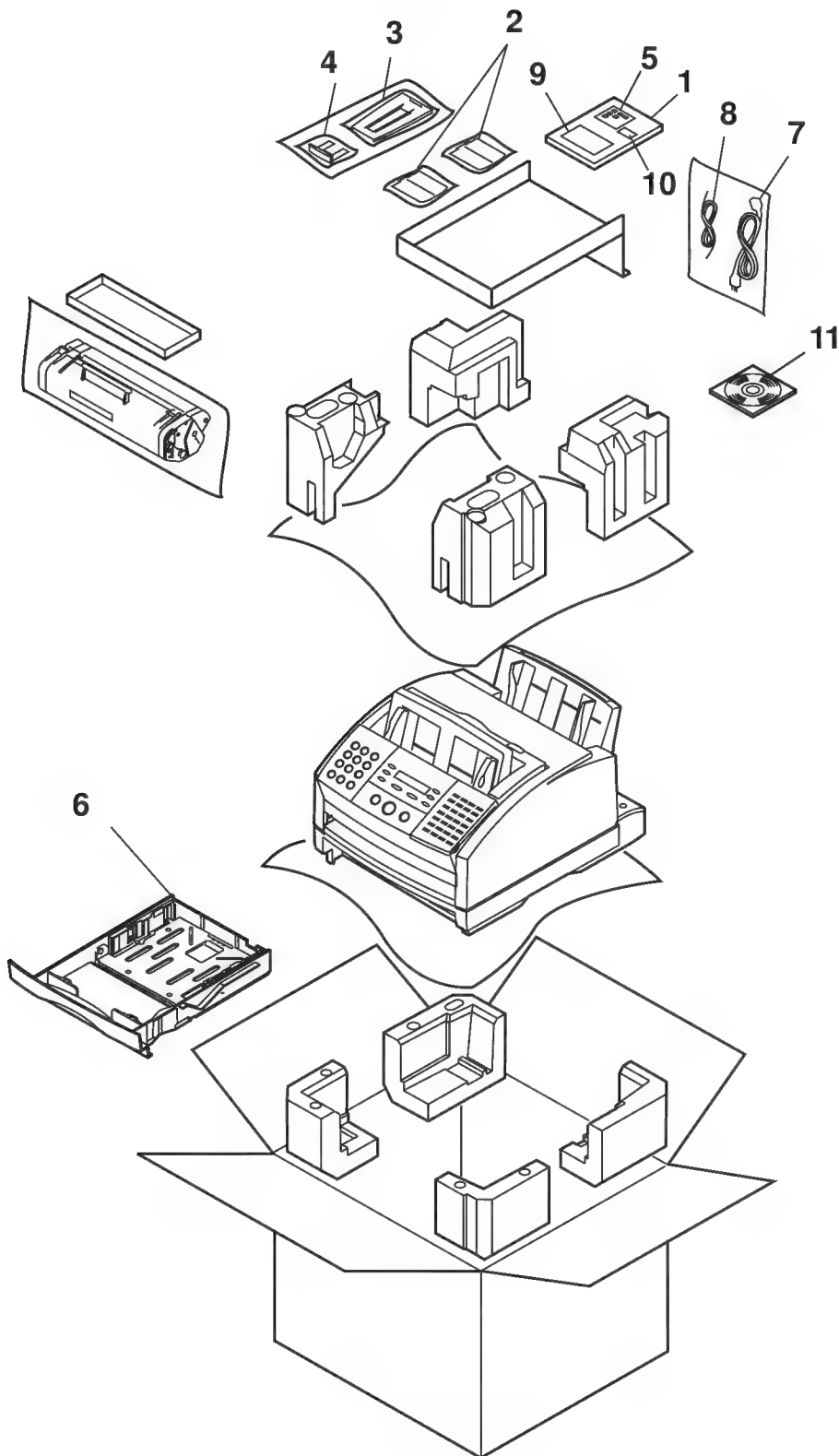


FIGURE & KEY No.	PART No.	R A N K	Q T Y	DESCRIPTION	REMARKS
1 - 1	HT1-2148-000	N	1	USER'S GUIDE (ENGLISH)	UK AUS AE
	HT1-3092-000	N	1	USER'S GUIDE (MODELE FRANCE)	FRN
	HT1-5068-000	N	1	USER'S GUIDE (DEUTSCH)	GER
2	HB1-4360-000		2	TRAY, SUPPORT	
3	HB1-4348-000		1	TRAY, DOCUMENT	
4	HB1-4349-000		1	TRAY, DOCUMENT, EXTENSION	
5	HB1-4357-000		1	LABEL, DESTINATION	
6	HG5-2210-000		1	CASSETTE ASS'Y (A4)	
7	WT3-5020-000		1	CORD, POWER	GER FRN AE
	WT3-5023-000		1	CORD, POWER	AUS
8	WT3-5058-000		1	CORD, POWER	UK
	HH2-1914-000		1	MODULAR CORD, 6P	UK
	HH2-2074-000		1	MODULAR CORD (GERM)	GER
	HH2-2219-000		1	MODULAR CORD	FRN
	HH2-2478-000		1	MODULAR CORD, 2P	AUS
9	HH2-2824-000		1	MODULAR CORD, 2P	AE
	HB1-4316-000		1	LABEL, WARNING	
10	HA2-0868-000		1	LABEL, MERCURY	UK
11	HH4-3369-000	N	1	CD-ROM, DRIVER SOFTWARE	

FIGURE 2 COVERS & TRAY ASS'Y

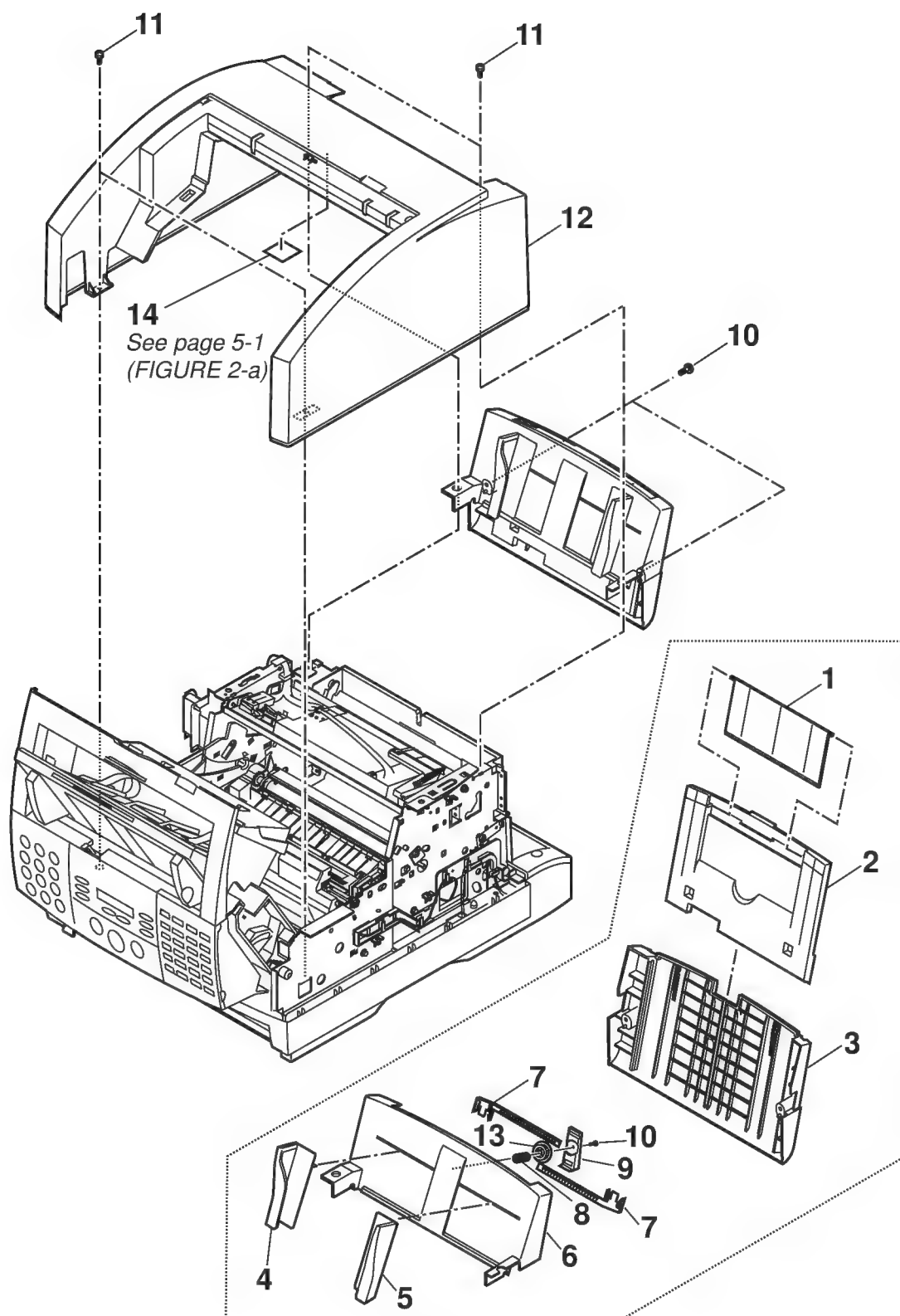
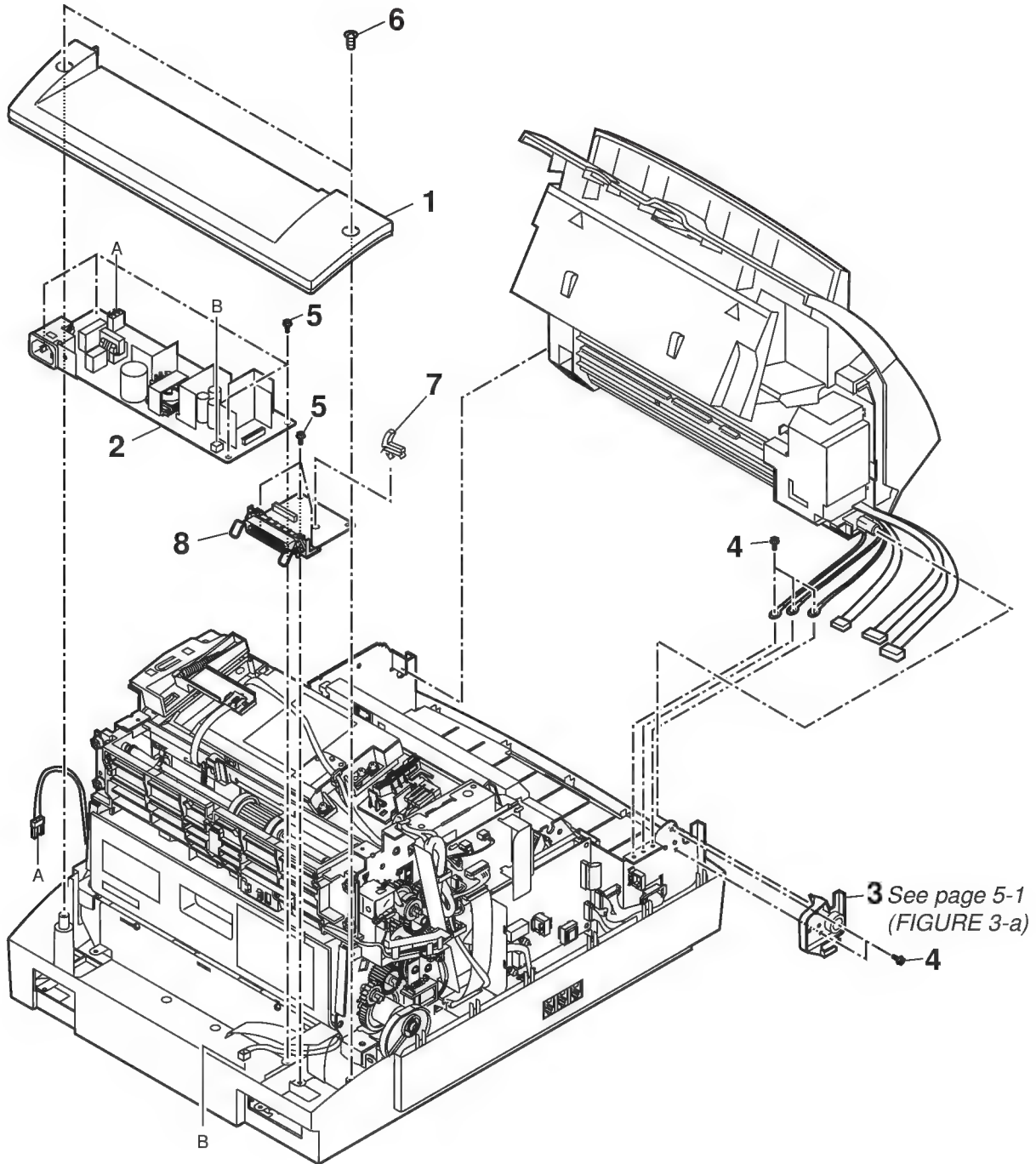


FIGURE & KEY No.	PART No.	R A N K	Q T Y	DESCRIPTION	REMARKS
2 - 1	HB1-4340-000		1	TRAY, PAPER FEED, EXTENTION	
2	HB1-4339-000		1	TRAY, PAPER FEED	
3	HB1-4338-000		1	GUIDE, PAPER FEED TRAY	
4	HB1-4336-000		1	GUIDE, PAPER FEED,LEFT	
5	HB1-4337-000		1	GUIDE, PAPER FEED,RIGHT	
6	HB1-4334-000		1	TRAY, PAPER FEED	
7	HB1-3008-000		2	RACK	
8	HS5-2141-020		1	SPRING, SLIDER	
9	HB1-4335-000		1	COVER, GEAR	
10	XB4-7300-807		3	SCREW, TAPTIGHT, BINDING HEAD	
11	XB3-6301-000		4	SCREW, RS, M3X10	
12	HB1-4346-000		1	COVER, UPPER	
13	HS5-0254-000		1	GEAR, Z16	
14	HB1-4380-000		1	SHEET	

FIGURE 3 READING ASS'Y & CIRCUIT BOARDS



[illegible]

FIGURE 4 CIRCUIT BOARDS & COVERS

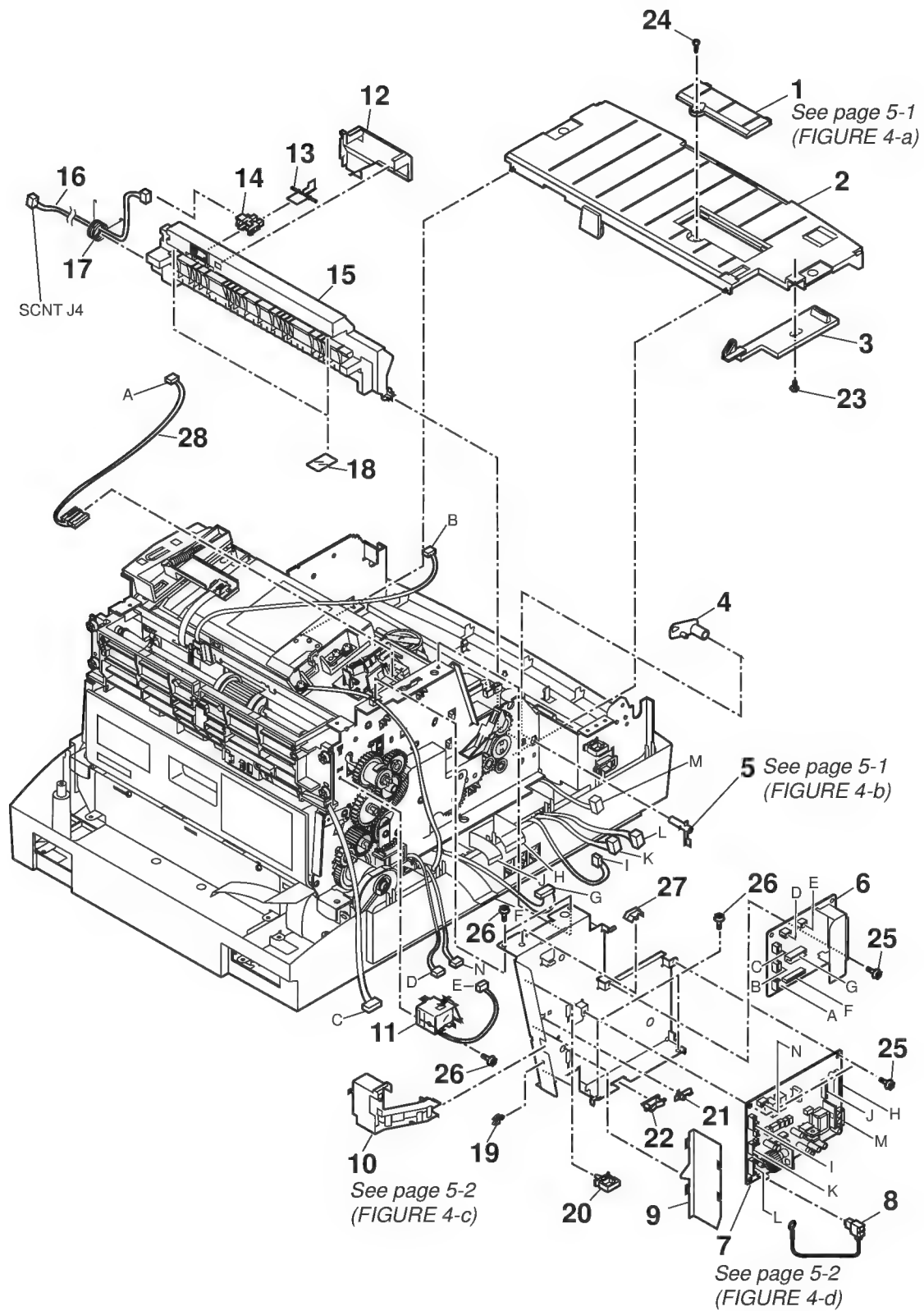


FIGURE & KEY No.	PART No.	R A N K	Q T Y	DESCRIPTION	REMARKS
4 - 1	HB1-4332-000		1	COVER, ROM	
2	HB1-4331-000		1	GUIDE, PAPER EJECT	
3	HB1-4333-000		1	LEVER	
4	HB1-4352-000		1	SUPPORT, LEVER	
5	HB1-4353-000		1	SHAFT, SUPPORT, LEVER	
6	HG5-2225-000		1	MCNT BOARD ASS'Y	
7	HG5-2043-000		1	NCU BOARD ASS'Y	EC UK GER FRN
	HG5-2048-000		1	NCU BOARD ASS'Y	AUS AE
8	HH2-2967-000		1	WIRE, GROUNDING	
9	HB1-4359-000		1	COVER, CABLE, MCNT	
10	HB1-4288-000		1	GUIDE, CABLE	
11	HH7-2418-000		1	SOLENOID	
12	HB1-4260-000		1	COVER, OVERFLOW SENSOR	
13	HB1-4259-000		1	ARM, OVERFLOW DETECT	
14	WG8-5362-000		1	IC, TLP1241, PHOTO-INTERRUPTER	
15	HB1-4258-000		1	COVER, PAPER EJECT, FACE DOWN	
16	HH2-2952-000		1	CABLE WITH CONNECTOR, 3P	
17	HS5-2192-000		1	SPRING	
18	HB1-4261-000		2	SHEET	
19	WT2-5026-000		1	CLIP, CABLE	
20	WT2-0317-000		3	CLIP, CABLE	
21	HB1-4361-000		1	SPACER	
22	WT2-5629-000		1	CLIP	
23	XA9-0476-000		1	SCREW, TP M3X8	
24	XB4-7301-007		1	SCREW, TAP TIGHT BH3X10	
25	XB1-2300-807		3	SCREW, CROSS-RECESS, FCH	
26	XB3-6300-800		5	SCREW, RS, M3X8	
27	WT2-5089-000		1	CLAMP	
28	HH2-2968-000		1	CABLE WITH CONNECTOR, 3P	

FIGURE 5 COVERS & MAIN FRAME

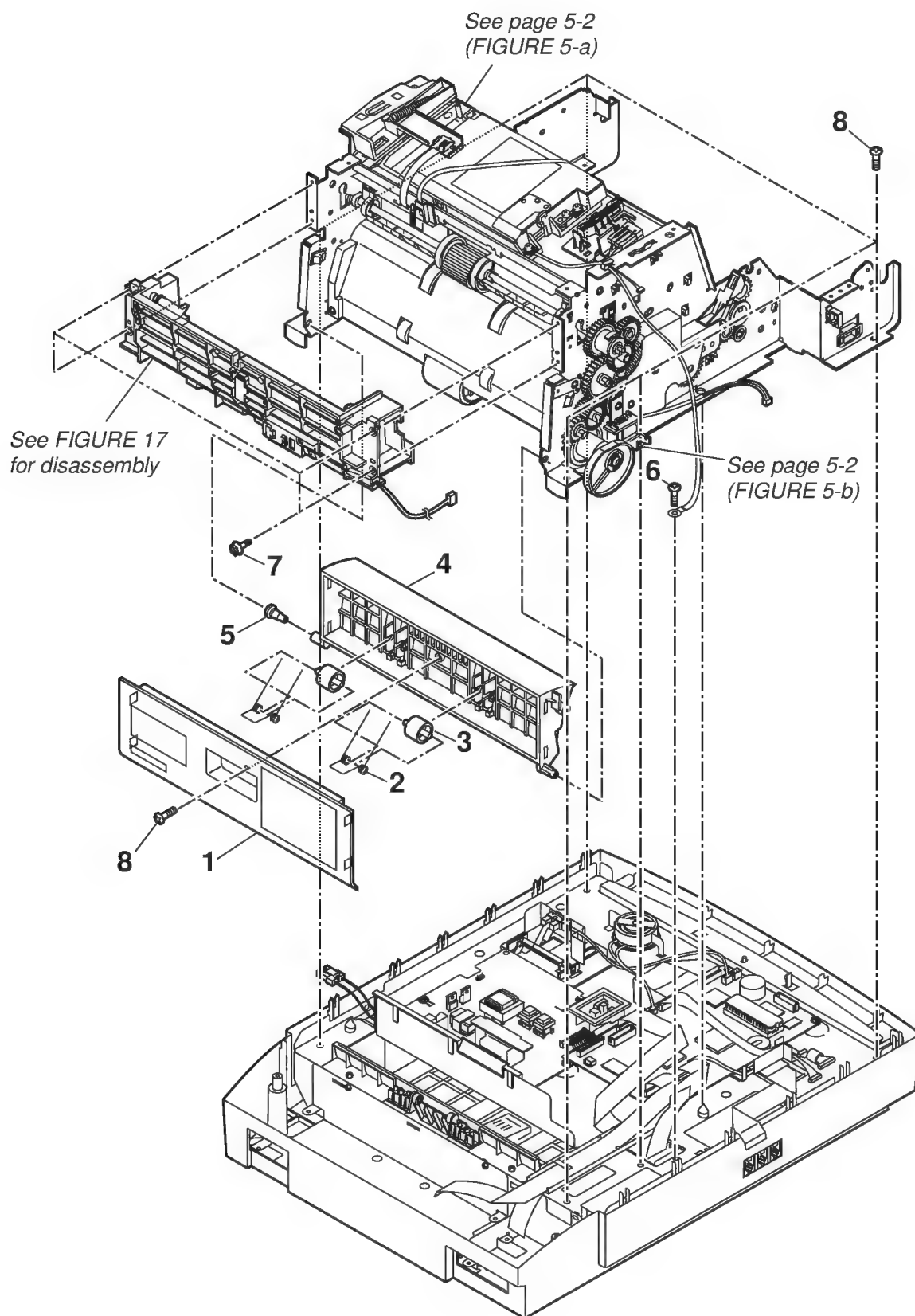


FIGURE 6 CIRCUIT BOARDS

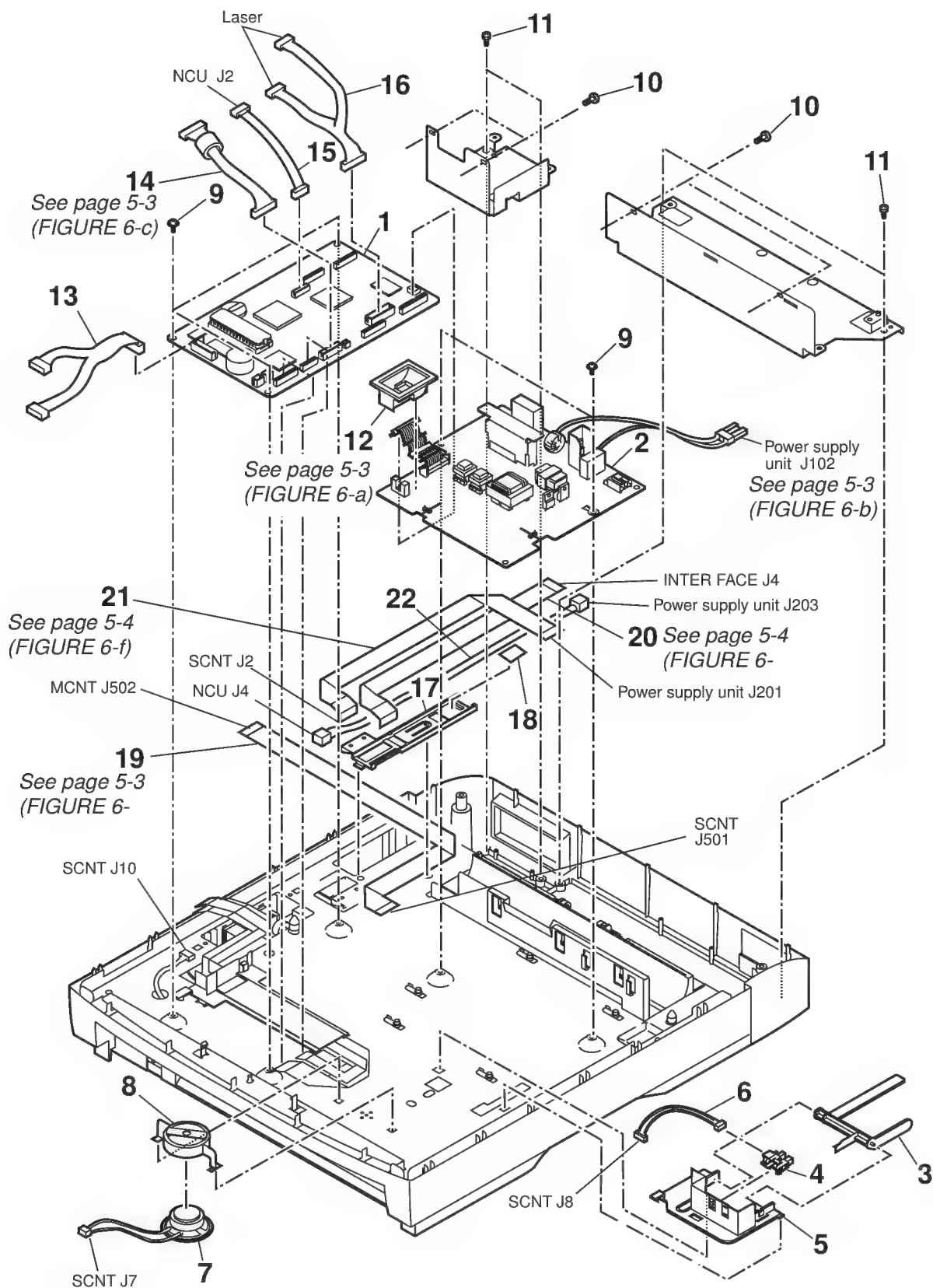


FIGURE & KEY No.	PART No.	R A N K	Q T Y	DESCRIPTION	REMARKS
6 - 1	HG5-2218-000		1	SCNT BOARD ASS'Y	
2	HG5-2221-000		1	PCNT BOARD ASS'Y	
3	HB1-4299-000		1	ARM, DETECTION (RPS)	
4	WG8-5362-000		1	IC, TLP1241, PHOTO-INTERRUPTER	
5	HB1-4300-000		1	MOUNT, ARM, DETECTION	
6	HH2-2951-000		1	CABLE WITH CONNECTOR, 3P	
7	HH7-2426-000		1	SPEAKER UNIT	
8	HB1-3023-000		1	HOLDER, SPEAKER	
9	XA9-0863-000		5	SCREW, TAP M3X6	
10	XB3-6300-800		4	SCREW, RS, M3X8	
11	XB4-7401-007		4	SCREW, PAN HEAD SELF-TAPPING	
12	RF5-2382-000		1	COVER, WATERPROOF	
13	HH2-2954-000		1	CABLE WITH CONNECTOR, 10P	
14	HH2-2959-000		1	CABLE WITH CONNECTOR, 9P	
15	HH2-2964-000		1	CABLE WITH CONNECTOR, 6P	
16	HH9-0259-000		1	CABLE WITH CONNECTOR, 11P	
17	HB1-4295-000		1	GUIDE, CABLE, SCNT	
18	HB1-4383-000		1	SHEET	
19	HH2-2946-000		1	CABLE, FLAT, 21P	
20	HH2-2949-000		1	CABLE, FLAT, 20P	
21	HH2-2950-000		1	CABLE, FLAT, 16P	
22	HH2-2962-000		1	CABLE WITH CONNECTOR, 2P	

FIGURE 7 CIRCUIT BOARD & PAPER PICKUP SECTION

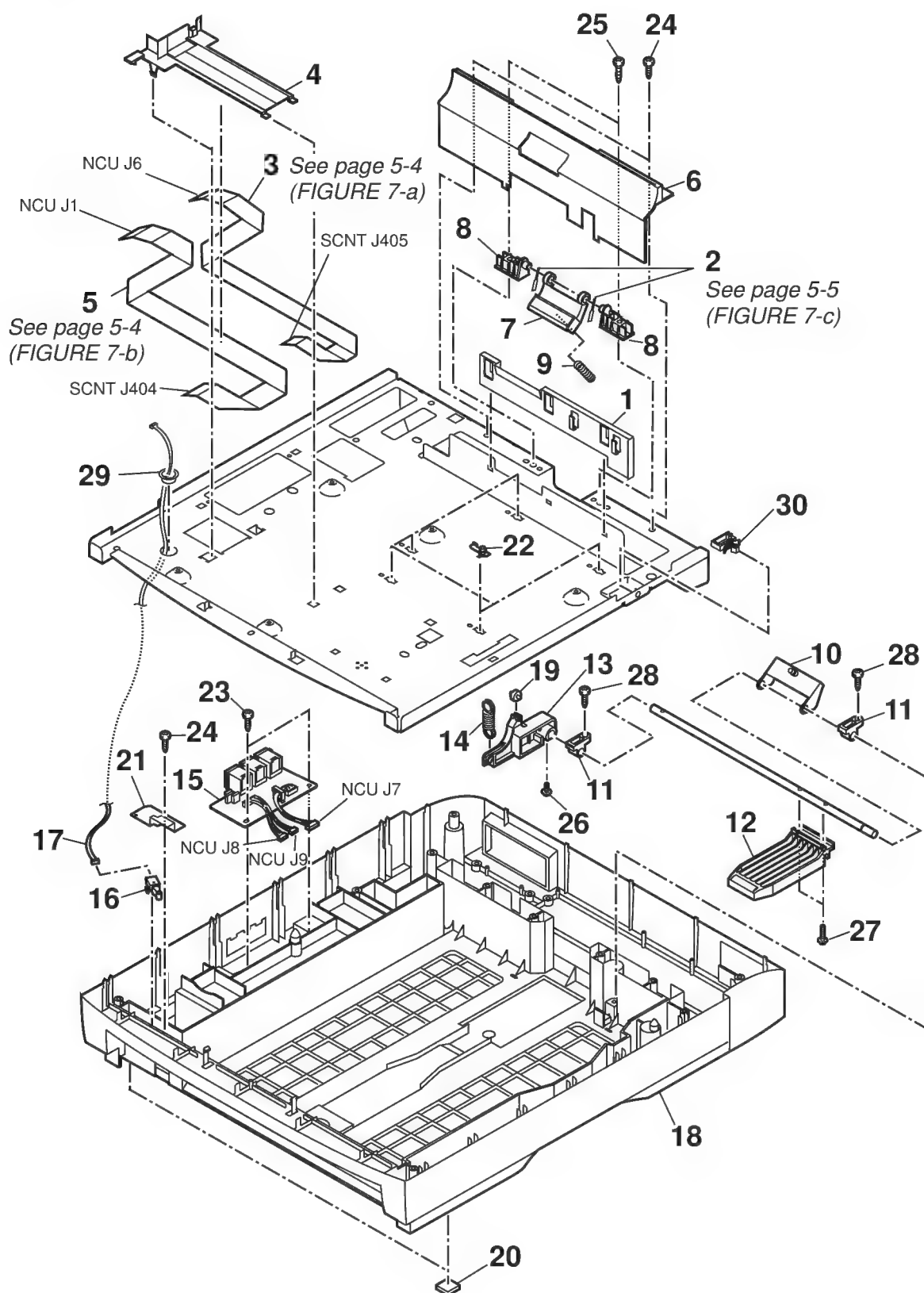


FIGURE & KEY No.	PART No.	R A N K	Q T Y	DESCRIPTION	REMARKS
7 - 1	HB1-4326-000		1	GUIDE, CABLE,PCNT	
2	HB1-4369-000		2	SHEET	
3	HH2-2947-000		1	CABLE, FLAT, 14P	
4	HB1-4301-000		1	GUIDE, CABLE,NCU	
5	HH2-2948-000		1	CABLE, FLAT, 23P	
6	HB1-4296-000		1	GUIDE, CASSETTE,PAPER FEED	
7	HB1-4297-000		1	PAD, SEPARATION	
8	HB1-4298-000		2	SUPPORT, SEPARATION PAD	
9	HS5-2198-000		1	SPRING, COMPRESSION	
10	HB1-4289-000		1	MOUNT, SHAFT	
11	HS5-1044-000		2	BUSHING	
12	HB1-1886-020		1	ARM, LIFTING	
13	HB1-1885-000		1	LEVER, LIFTING	
14	HS5-2197-000		1	SPRING, COMPRESSION	
15	HG5-2223-000		1	MODULAR BOARD ASS'Y	EC UK GER FRN
	HG5-2233-000		1	MODULAR BOARD ASS'Y	AUS AE
16	WC4-5052-000		1	MICRO SWITCH	
17	HH2-2992-000		1	CABLE WITH CONNECTOR, 2P	
18	HB1-4291-000		1	COVER, BOTTOM	
19	RB1-2152-000		1	ROLLER, ARM	
20	QB1-3593-000		2	FOOT, PRINTER	
21	HB1-4368-000		1	COVER, SENSOR	
22	HB1-4361-000		5	SPACER	
23	XB4-7300-807		2	SCREW, TAP TIGHT, BINDING HEAD	
24	XB4-7401-007		3	SCREW, PAN HEAD SELF-TAPPING	
25	XB4-7402-009		2	SCREW, SELF-TAPPING, M4X20	
26	XB6-7300-607		1	SCREW, TP, M3X6	
27	XB6-7301-205		2	SCREW, TP, M3X12	
28	XB4-7401-209		2	SCREW, BINDING HEAD, SELF-TPG	
29	WT2-5034-000		1	BUSHING	
30	WT2-0317-000		1	CLIP, CABLE	

FIGURE 8 READING ASS'Y 1

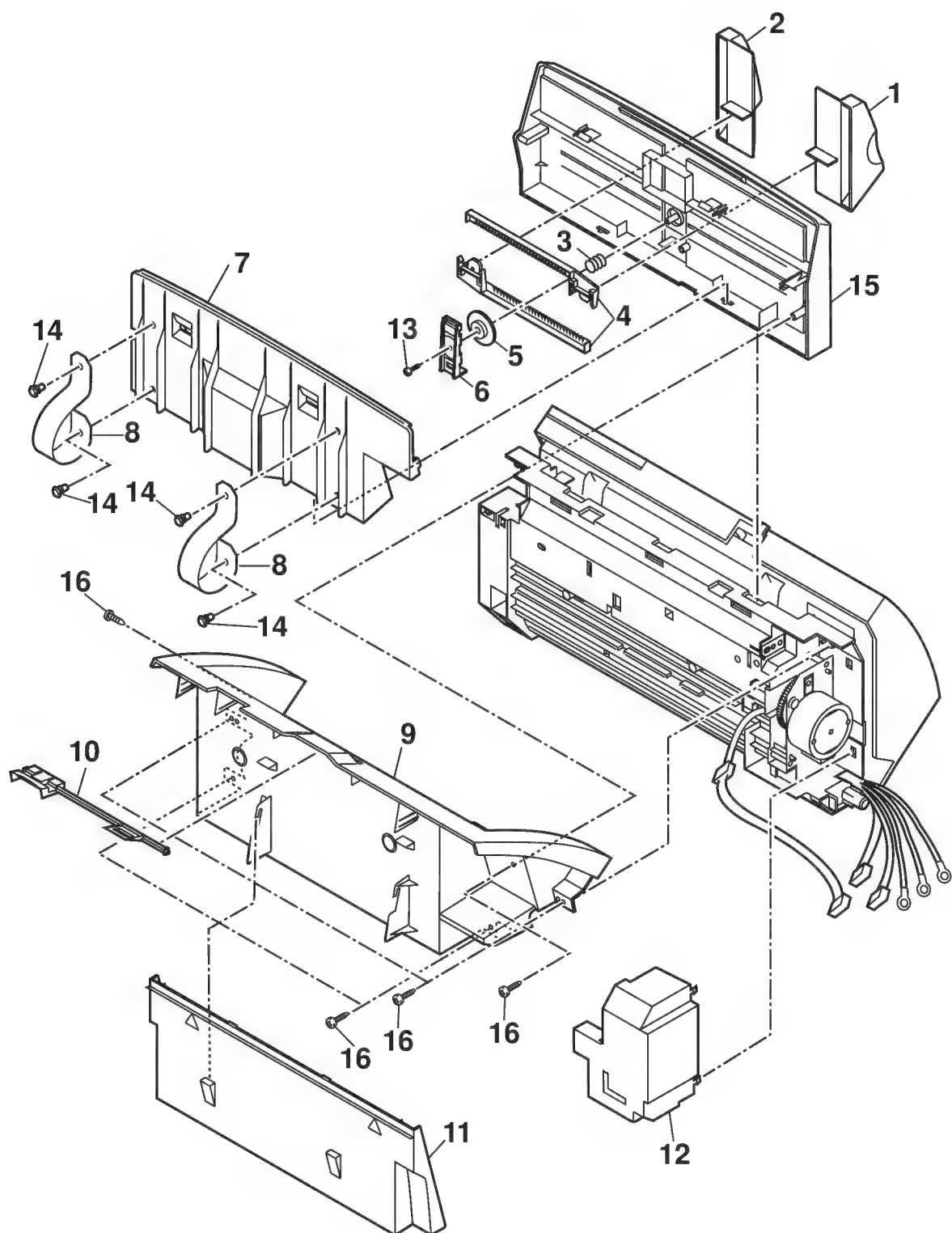
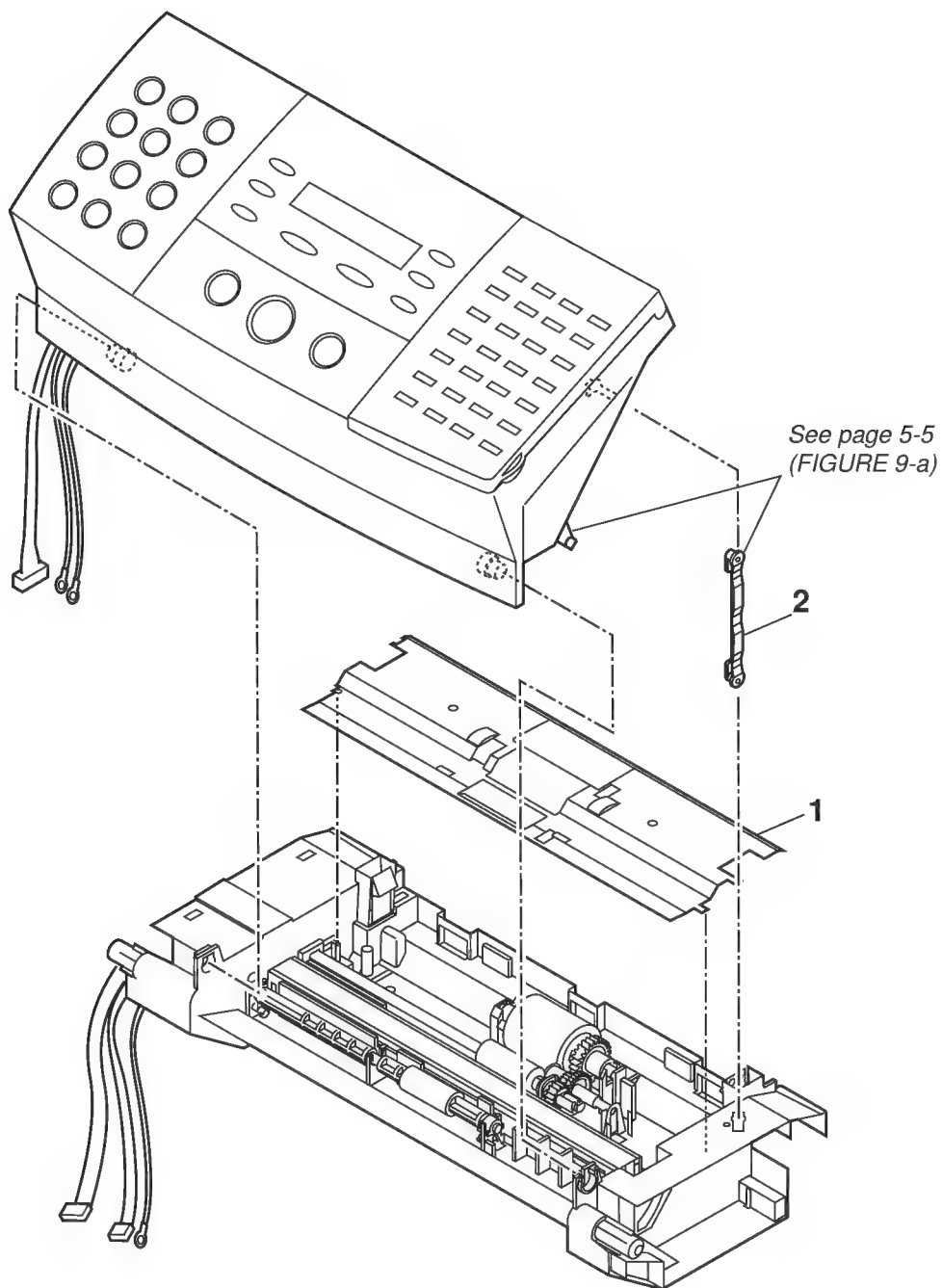


FIGURE & KEY No.	PART No.	R A N K	Q T Y	DESCRIPTION	REMARKS
8 - 1	HB1-4327-000		1	GUIDE, DOCUMENT FEED,LEFT	
2	HB1-4328-000		1	GUIDE, DOCUMENT FEED,RIGHT	
3	HS5-2141-020		1	SPRING, SLIDER	
4	HB1-2883-000		2	SLIDER, RACK	
5	HS5-0238-020		1	GEAR, Z16	
6	HB1-4335-000		1	COVER, GEAR	
7	HB1-4330-000		1	GUIDE, PAPER EJECT	
8	HB1-4362-000		2	SHEET	
9	HB1-4323-000		1	COVER, FRONT	
10	HB1-4325-000		1	LEVER, ADF RELEASE	
11	HB1-4324-000		1	DUCT, AIR	
12	HB1-4322-000		1	COVER, GEAR	
13	XB4-7300-807		1	SCREW, TAP TIGHT, BINDING HEAD	
14	WT8-0053-000		4	REKET	
15	HB1-4329-000		1	COVER, DOCUMENT	
16	XB4-7301-009		6	SCREW, BINDING HEAD SELF-TPG	

FIGURE 9 READING ASS'Y 2



[illegible]

FIGURE 10 OPERATION PANEL ASS'Y & ADF UPPER

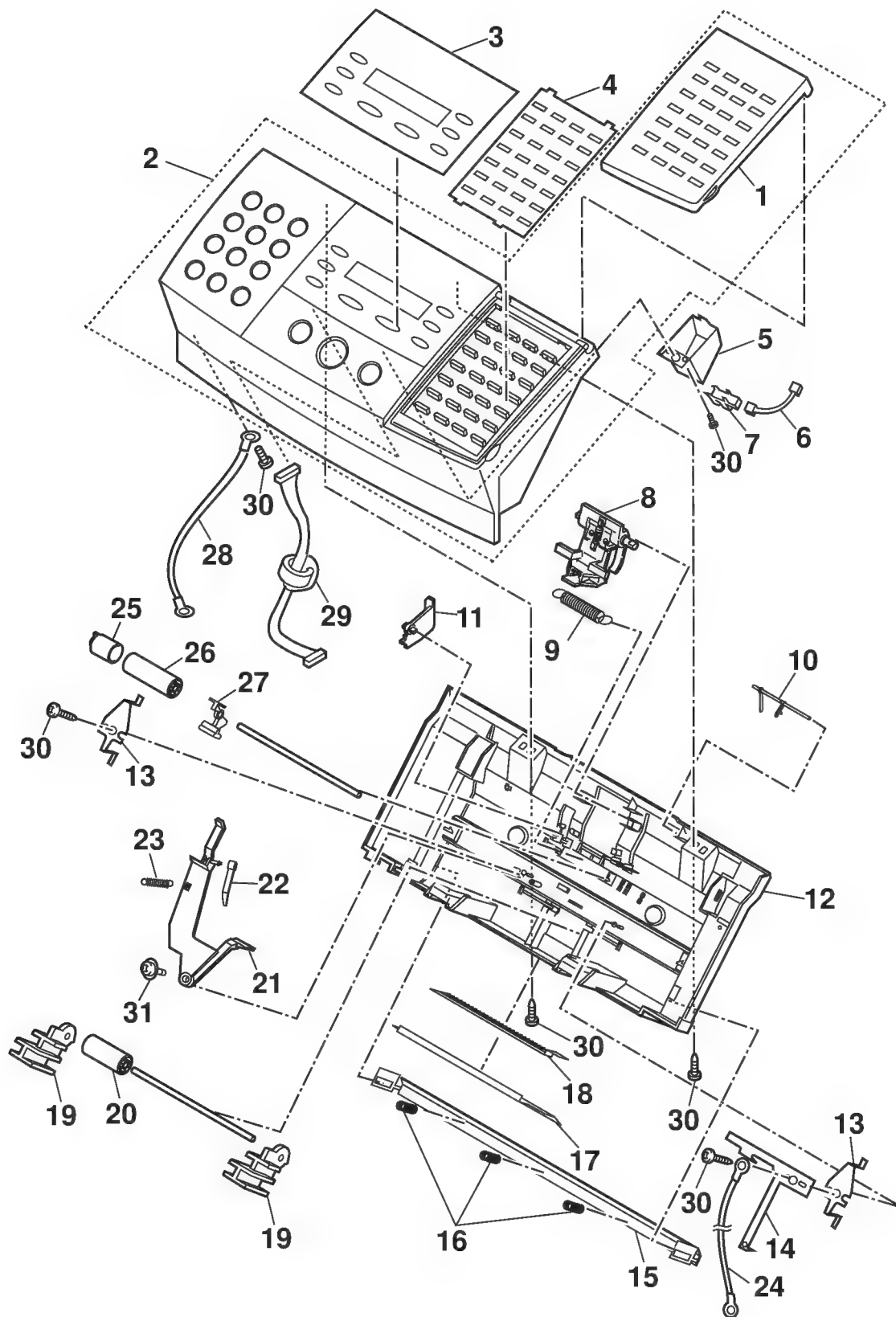


FIGURE & KEY No.	PART No.	R A N K	Q T Y	DESCRIPTION	REMARKS
10 -1	HB1-4373-000		1	COVER, ONE TOUCH DAIL	
2	HG5-2232-000		1	OPERATION PANEL UNIT	
3	HB1-4371-000		1	SHEET, OPERATION PANEL	UK AUS AE
	HB1-4376-000		1	SHEET, OPERATION PANEL	GER
	HB1-4378-000		1	SHEET, OPERATION PANEL	FRN
4	HB1-4372-000		1	SHEET, FUNCTION	UK AUS AE
	HB1-4377-000		1	SHEET, FUNCTION	GER
	HB1-4379-000		1	SHEET, FUNCTION	FRN
5	HB1-4318-000		1	HOLDER, SENSOR	
6	HH2-2978-000		1	CABLE WITH CONNECTOR, 3P	
7	WG8-5362-000		1	IC, TLP1241, PHOTO-INTERRUPTER	
8	HG5-1308-000		1	SEPARATION GUIDE ASS'Y	
9	HS5-2078-000		1	SPRING	
10	HB1-4311-000		1	ARM, DETECTION (DS)	
11	HB1-4317-000		1	STOPPER, DOCUMENT	
12	HB1-4309-000		1	FRAME, ADF UPPER	
13	HB1-2866-000		2	PLATE, PRESSURE	
14	HS5-2199-000		1	PLATE, PRESSURE	
15	HF5-0399-000		1	WHITE SHEET UNIT	
16	HS5-2129-000		3	SPRING, WHITE SHEET	
17	HB1-4365-000		1	SHEET, BRUSH, STATIC DISCHARGE	
18	HB1-4072-000		1	BRUSH, STATIC DISCHARGE	
19	HB1-4313-000		2	GUIDE, DOCUMENT EJECT	
20	HS5-6069-000		1	ROLLER, DELIVERY	
21	HB1-4314-000		1	LEVER, DOCUMENT RELEASE	
22	HB1-4315-000		1	CLAW, DOCUMENT RELEASE	
23	HS5-2200-000		1	SPRING	
24	HH2-2958-000		1	WIRE, GROUNDING	
25	HB1-2864-000		1	ROLLER, BACK UP	
26	HS5-6023-030		1	ROLLER, BACK UP	
27	HB1-4310-000		1	ARM, DETECTION (DES)	
28	HH2-2966-000		1	WIRE, GROUNDING	
29	HH2-2953-000		1	CABLE WITH CONNECTOR, 6P	
30	XB4-7300-807		6	SCREW, TAP TIGHT, BINDING HEAD	
31	XA9-0476-000		1	SCREW, TP M3X8	

FIGURE 11 ADF LOWER

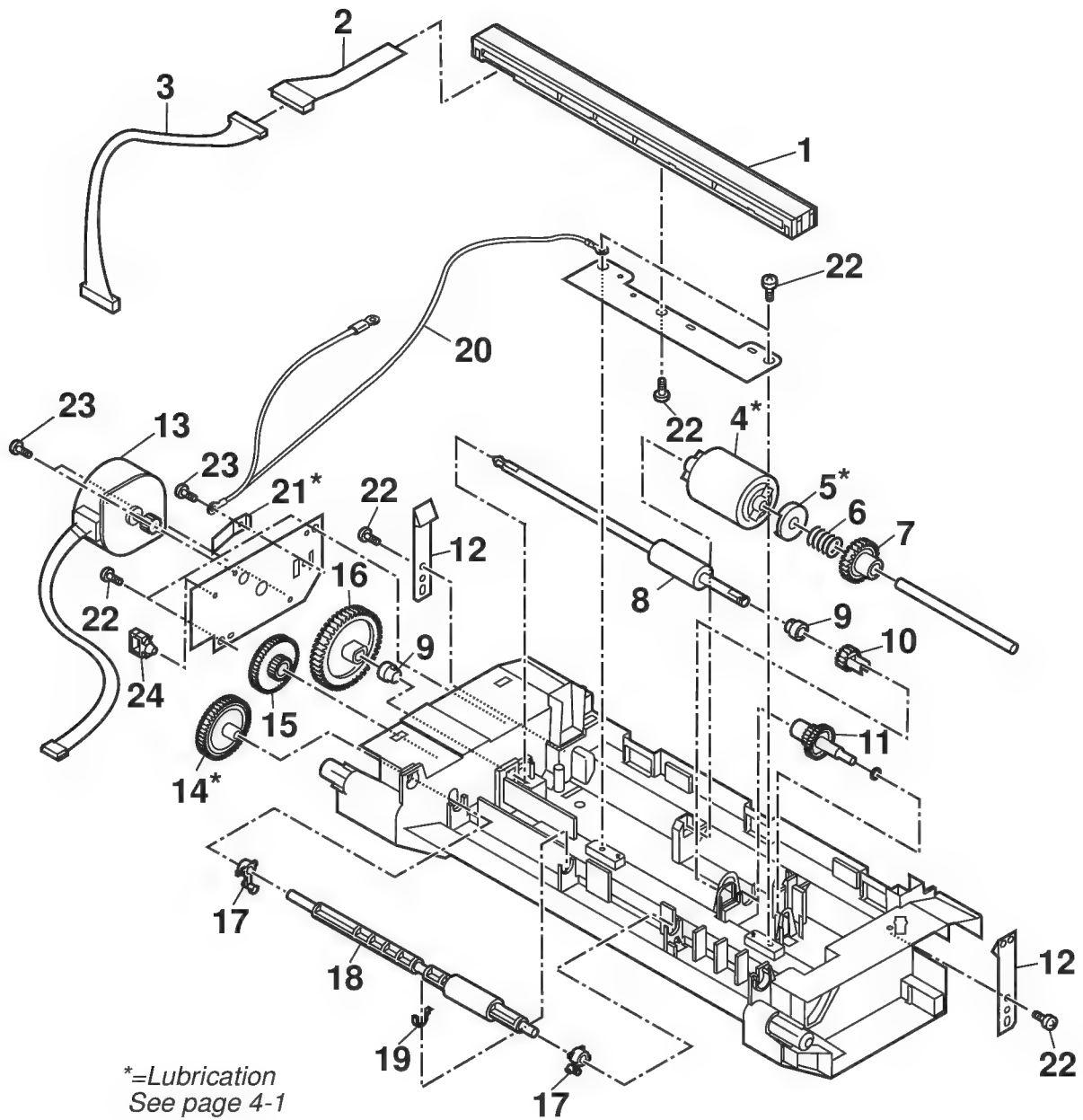


FIGURE & KEY No.	PART No.	R A N K	Q T Y	DESCRIPTION	REMARKS
11 -1	HH7-2424-000		1	CONTACT SENSOR UNIT	
2	HH2-2961-000		1	CABLE, FLAT, 12P	
3	HH2-2960-000		1	CABLE WITH CONNECTOR, 9P	
4	HB1-3697-000		1	ROLLER, SEPARATION	
5	HB1-1779-000		1	SPACER	
6	HS5-2077-000		1	SPRING, CLUTCH	
7	HS5-0314-000		1	GEAR, Z40D	
8	HB1-4307-000		1	ROLLER, DOCUMENT FEED	
9	HS1-1063-000		2	BUSHING	
10	HS5-0315-000		1	GEAR, Z21D	
11	HS5-0316-000		1	GEAR, Z21/28B	
12	HF5-0544-000		2	LOCK, OPERATION PANEL	
13	HH7-2419-000		1	MOTOR, DOCUMENT FEED	
14	HS5-0312-000		1	GEAR, Z59D	
15	HS5-0313-000		1	GEAR, Z21/Z54	
16	HS5-0311-000		1	GEAR, Z82D	
17	HS5-1091-000		2	BUSHING	
18	HF5-0543-000		1	ROLLER, DOCUMENT EJECT	
19	HS5-1090-000		1	BUSHING	
20	HH2-2965-000		1	WIRE, GROUNDING	
21	HB1-3036-000		1	PLATE, GROUNDING	
22	XB4-7300-807		7	SCREW, TAP TIGHT, BINDING HEAD	
23	XB1-2300-407		3	SCREW, BH3X4 (S)	
24	WT2-0317-000		1	CLIP, CABLE	

FIGURE 12 SCANNER ASS'Y

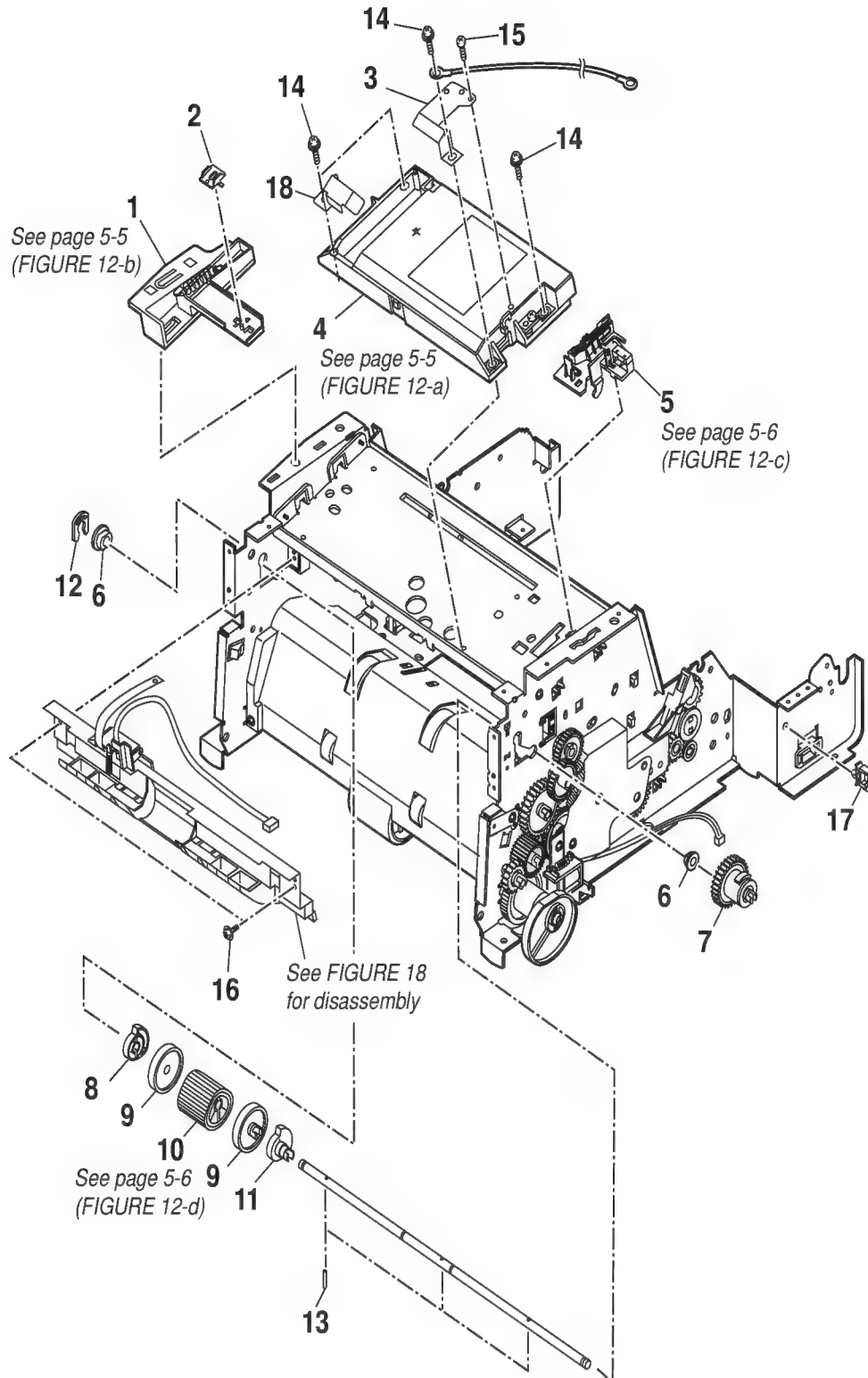


FIGURE & KEY No.	PART No.	R A N K	Q T Y	DESCRIPTION	REMARKS
12 -1	HG5-2180-000		1	ACTUATOR UNIT	
2	HB1-3018-000		1	STOPPER, TAPE	
3	HB1-3418-000		1	SPRING, GROUNDING	
4	RG9-1281-000		1	SCANNER ASS'Y	
5	RG5-3453-000		1	SWITCH LEVER ASS'Y	
6	HS5-1042-000		2	BUSH	
7	HB1-4285-000		1	CLUTCH, PAPER PICK-UP	
8	RB1-7193-000		1	CAM, LEFT	
9	HS5-6068-000		2	ROLLER, SUB	
10	HF5-0547-000		1	PICK-UP ROLLER UNIT	
11	RB1-7194-000		1	CAM, RIGHT	
12	FA3-8727-000		1	RETAINING RING	
13	XD9-0159-000		3	PIN, DOWEL	
14	XB6-7300-807		4	SCREW, TP, M3X8	
15	XB4-7300-807		1	SCREW, TAP TIGHT, BINDING HEAD	
16	XB3-6300-800		2	SCREW, RS, M3X8	
17	WT2-0317-000		1	CLIP, CABLE	
18	HB1-4370-000		1	PLATE, SCANNER	

FIGURE 13 PAPER FEED SECTION

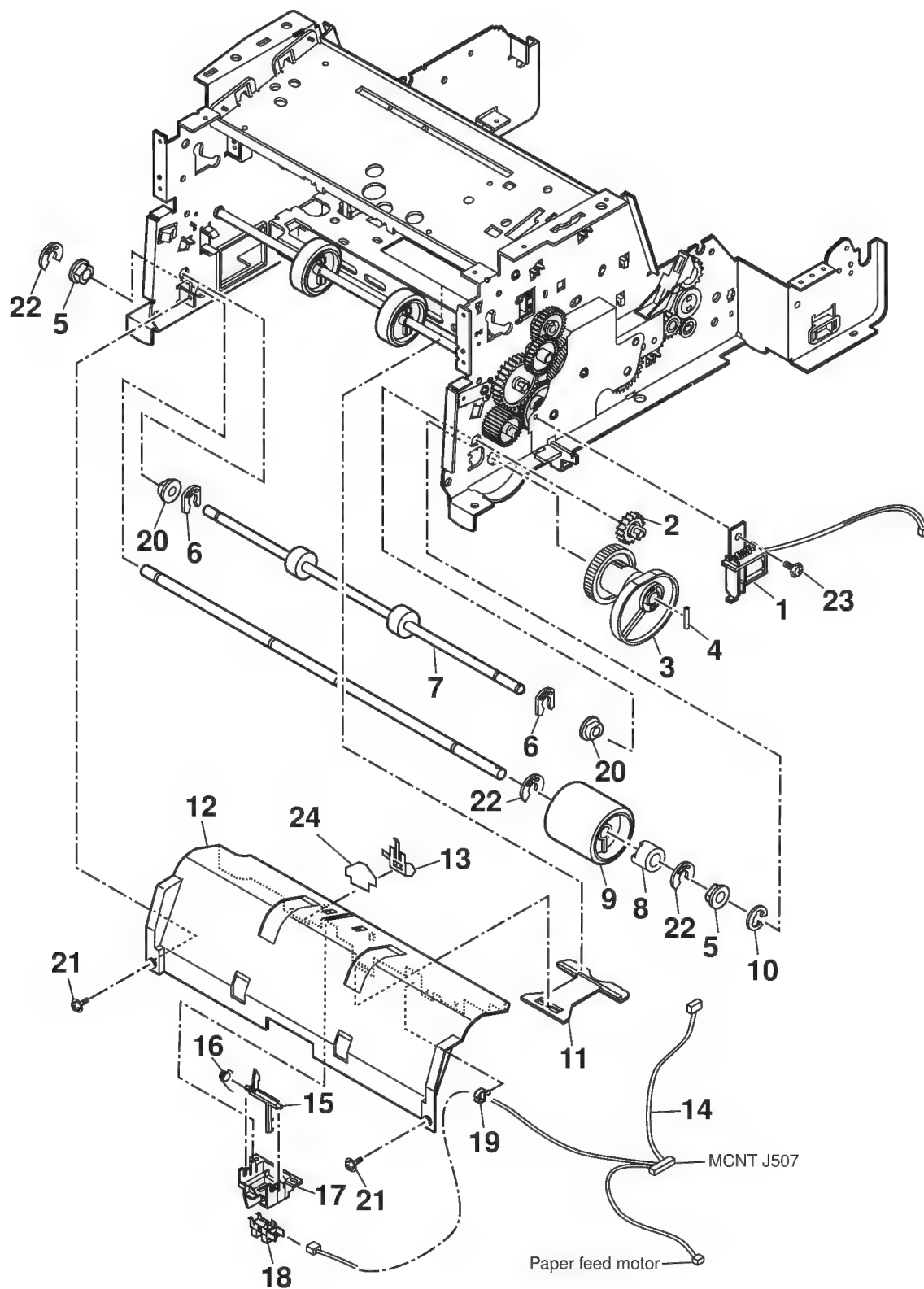


FIGURE & KEY No.	PART No.	R A N K	Q T Y	DESCRIPTION	REMARKS
13 -1	HH7-2415-000		1	SOLENOID	
2	HS5-0310-000		1	GEAR, Z18	
3	HG5-2186-000		1	CAM UNIT	
4	XD9-0108-000		1	PIN, DOWEL	
5	HS5-1089-000		2	BUSHING	
6	FA3-8727-000		2	RETAINING RING	
7	HB1-4283-000		1	ROLLER, FEED	
8	HB1-4286-000		1	CLUTCH	
9	HB1-4282-000		1	ROLLER, PICK-UP	
10	XD2-1100-642		1	RING, E	
11	HB1-4284-000		1	PLATE, PAPER GUIDE	
12	HB1-4279-000		1	GUIDE, PAPER FEED	
13	RB1-7172-000		1	SPRING, GROUNDING	
14	HH2-2957-000		1	CABLE WITH CONNECTOR, 9P	
15	HB1-1867-000		1	ARM, DETECTION (PES)	
16	RB1-7205-000		1	SPRING, TORSION	
17	HB1-1868-020		1	HOLDER, PES	
18	WG8-5362-000		1	IC, TLP1241, PHOTO-INTERRUPTER	
19	WT2-0434-000		1	CLIP	
20	HS5-1042-000		2	BUSH	
21	HS5-9012-000		2	SCREW, TAP M3X6	
22	FA4-1159-000		3	RETAINING RING	
23	XB1-2300-807		1	SCREW, CROSS-RECESS, FCH	
24	HB1-4384-000		1	SHEET	

FIGURE 14 DRIVE GEARS

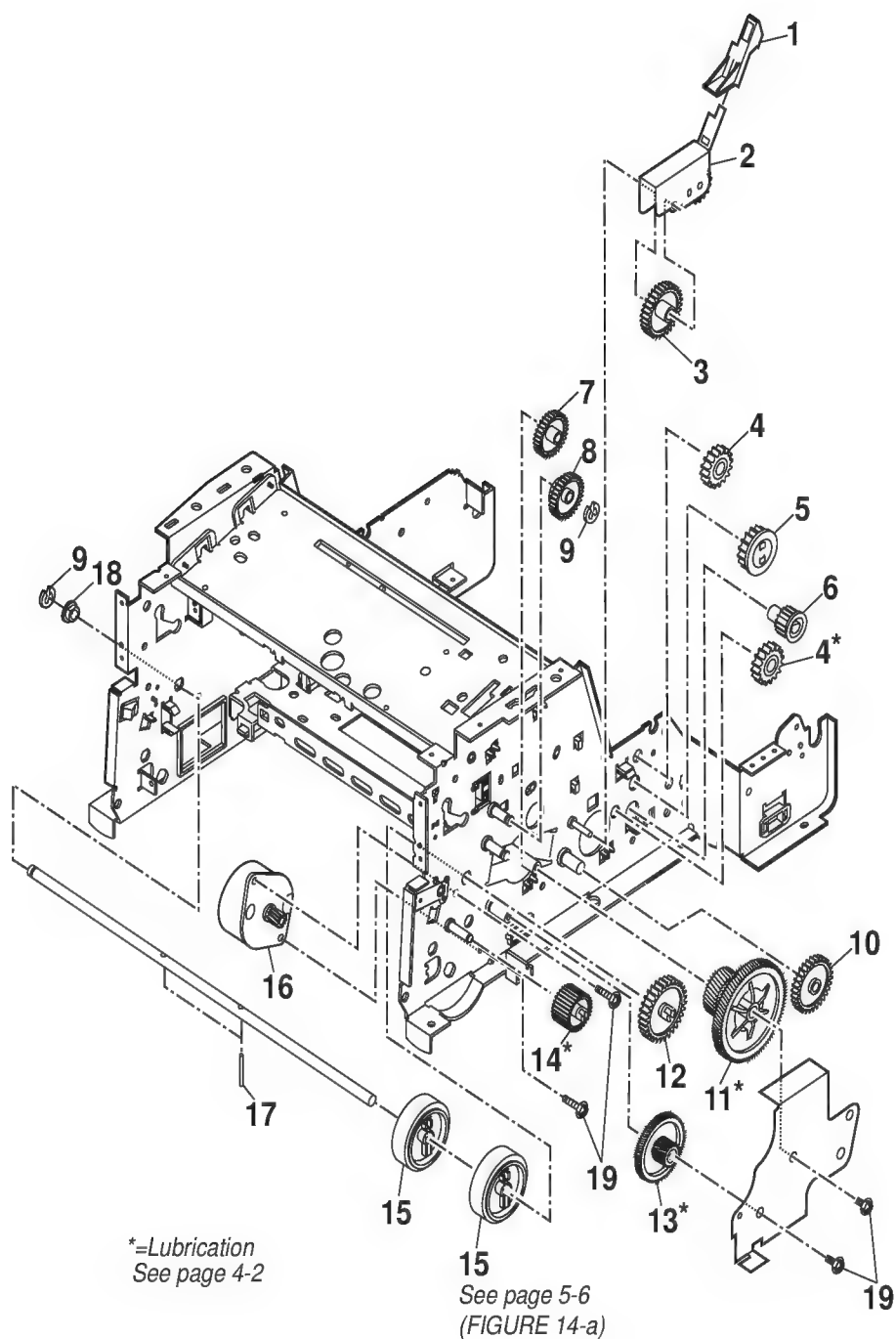


FIGURE & KEY No.	PART No.	R A N K	Q T Y	DESCRIPTION	REMARKS
14 -1	RB1-8170-000		1	LEVER, RELEASE, D	
2	RF5-1513-000		1	ARM, SWING	
3	RS5-0791-000		1	GEAR, 36T	
4	RS5-0793-000		2	GEAR, 22T	
5	RS5-0794-000		1	GEAR, 24T	
6	RS5-0798-000		1	GEAR, 15T	
7	RS5-0789-000		1	GEAR, 37T	
8	RS5-0799-000		1	GEAR, 51T/17T	
9	FA3-8727-000		2	RETAINING RING	
10	RS5-0790-000		1	GEAR, 54T/19T	
11	RS5-0788-000		1	GEAR, 32T/93T	
12	HS5-0148-000		1	GEAR, Z47	
13	RS6-0380-000		1	GEAR, 23T/98T	
14	HS5-0317-000		1	GEAR, Z28	
15	HB1-4277-000		2	ROLLER, FEED	
16	HH7-2422-000		1	MOTOR, MAIN	
17	XD9-0121-000		2	PIN, DOWEL	
18	HS5-1042-000		1	BUSH	
19	XB6-7300-807		4	SCREW, TP, M3X8	

FIGURE 15 FIXING SECTION 1

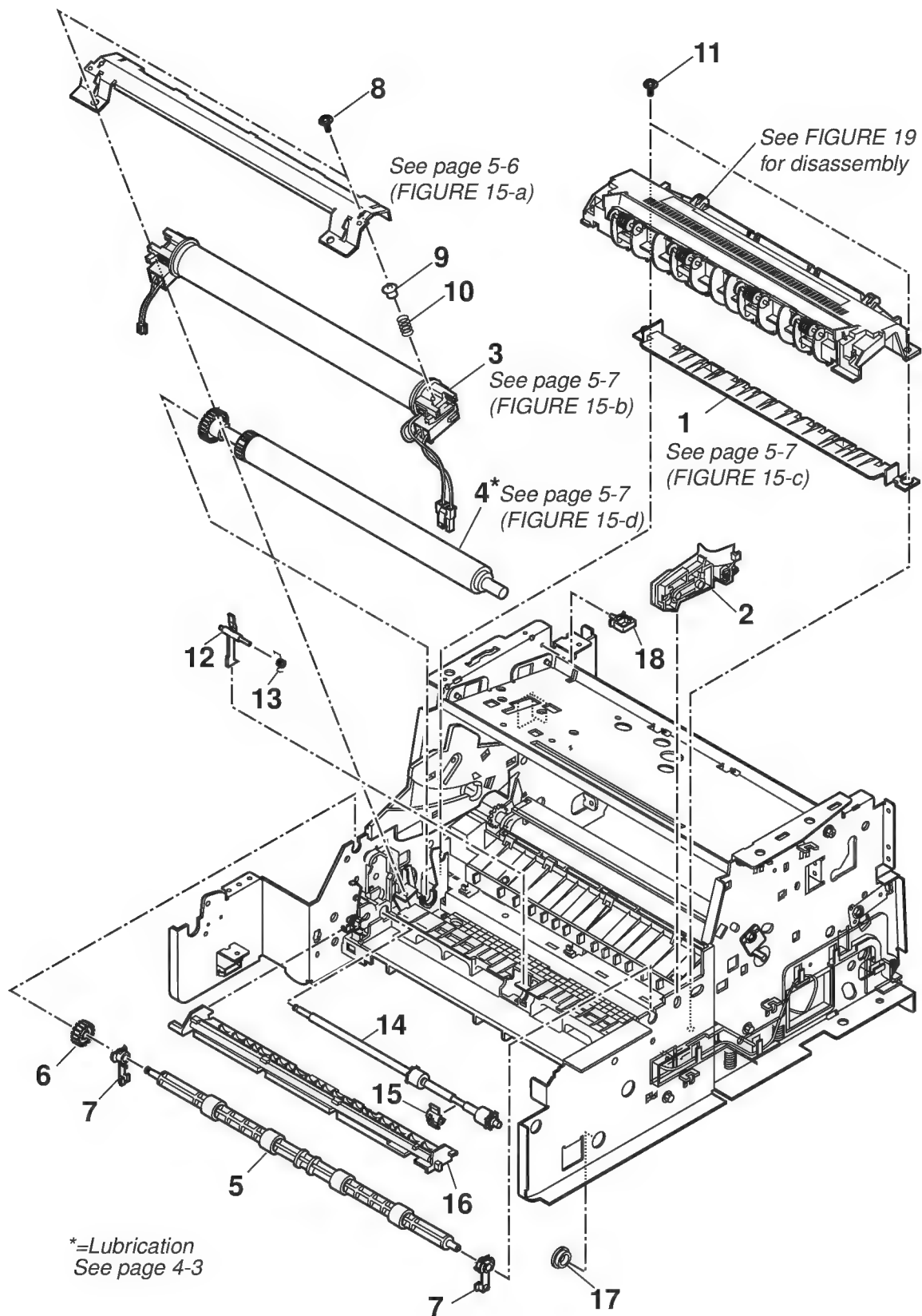


FIGURE & KEY No.	PART No.	R A N K	Q T Y	DESCRIPTION	REMARKS
15 -1	RB1-7247-000		1	GUIDE, PAPER	
2	RB1-7341-030		1	GUIDE, SUB, CARTRIDGE, RIGHT	
3	RG5-3463-000		1	FIXING ASS'Y	
4	RF5-2364-000		1	ROLLER, PRESSURE	
5	RF5-2367-000		1	ROLLER, FEEDER	
6	RS5-0797-000		1	GEAR, 18T	
7	RB1-7288-020		2	BUSHING	
8	XB6-7300-807		2	SCREW, TP, M3X8	
9	RB1-7257-000		2	BUSHING, SPRING	
10	RS5-2508-000		2	SPRING, COMPRESSION	
11	XB3-6300-800		2	SCREW, RS, M3X8	
12	RB1-7293-030		1	LEVER, SENSOR	
13	RB1-7294-000		1	SPRING, TORSION	
14	RF5-2368-000		1	ROLLER, FACE UP	
15	RB2-1690-000		1	BUSHING	
16	RG5-3476-030		1	FLAPPER	
17	WT2-5034-000		1	BUSHING	
18	WT2-0317-000		1	CLIP, CABLE	

FIGURE 16 FIXING SECTION 2

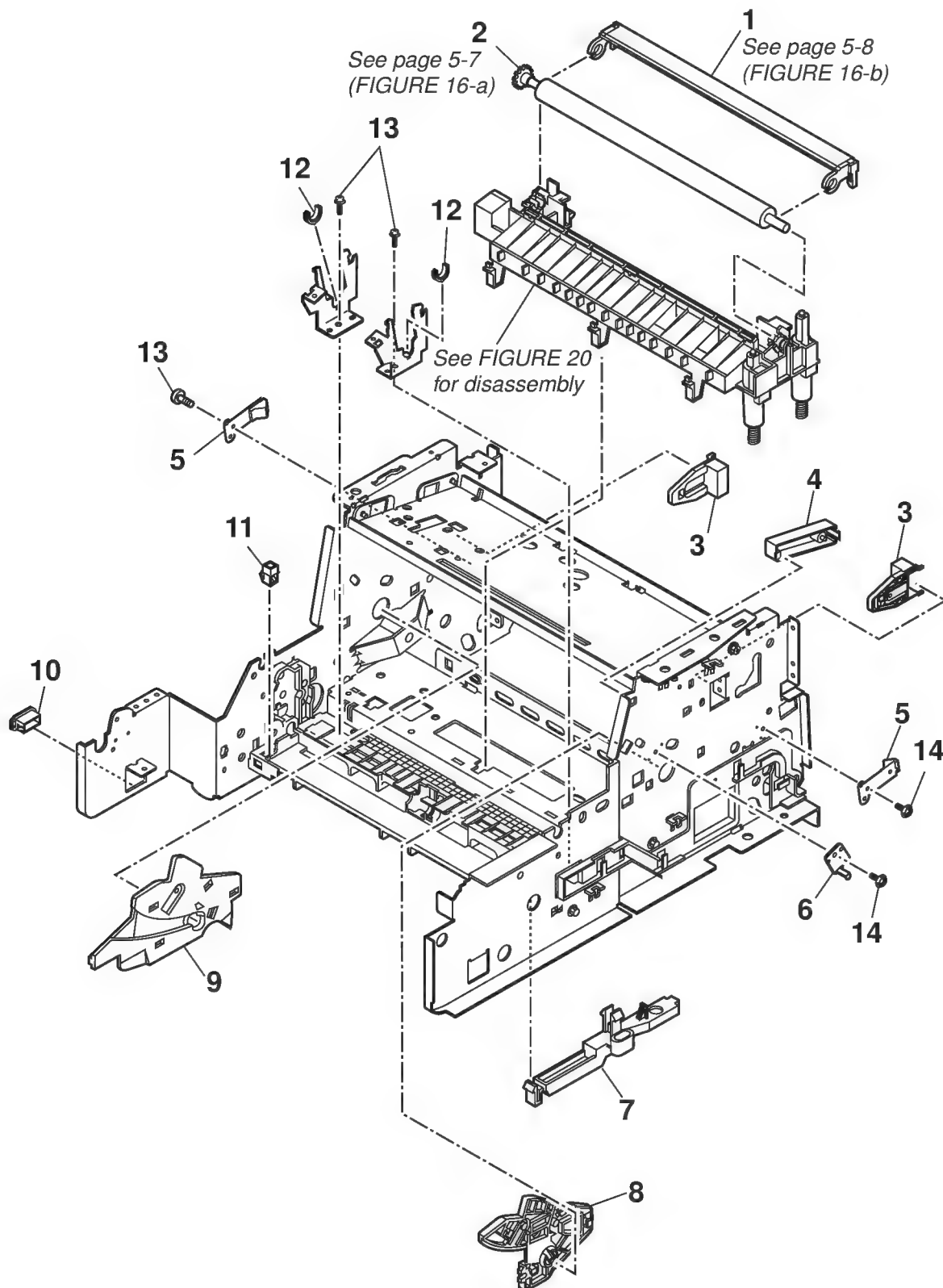


FIGURE & KEY No.	PART No.	R A N K	Q T Y	DESCRIPTION	REMARKS
16 -1	RF5-2358-000		1	GUIDE, TRANSFER	
2	RF5-1534-000		1	ROLLER, TRANSFER	
3	HB1-4287-000		2	STOPPER, CARTRIDGE	
4	HB1-1848-000		1	STOP, CARTRIDGE	
5	HF5-0540-000		2	LOCK, RELEASE COVER	
6	RB1-7129-000		1	SPRING, GROUNDING	
7	RF5-1533-000		1	PLATE, COMMUNITY	
8	RF5-1515-020		1	GUIDE, CARTRIDGE	
9	RF5-1514-020		1	GUIDE, CARTRIDGE,LEFT	
10	WT2-5062-000		1	BUSHING	
11	VS1-5057-002		1	CONNECTOR, 2P	
12	RB1-7246-000		2	BUSHING	
13	XB3-6300-800		3	SCREW, RS, M3X8	
14	XA9-0863-000		2	SCREW, TAP M3X6	

FIGURE 17 ASF ASS'Y

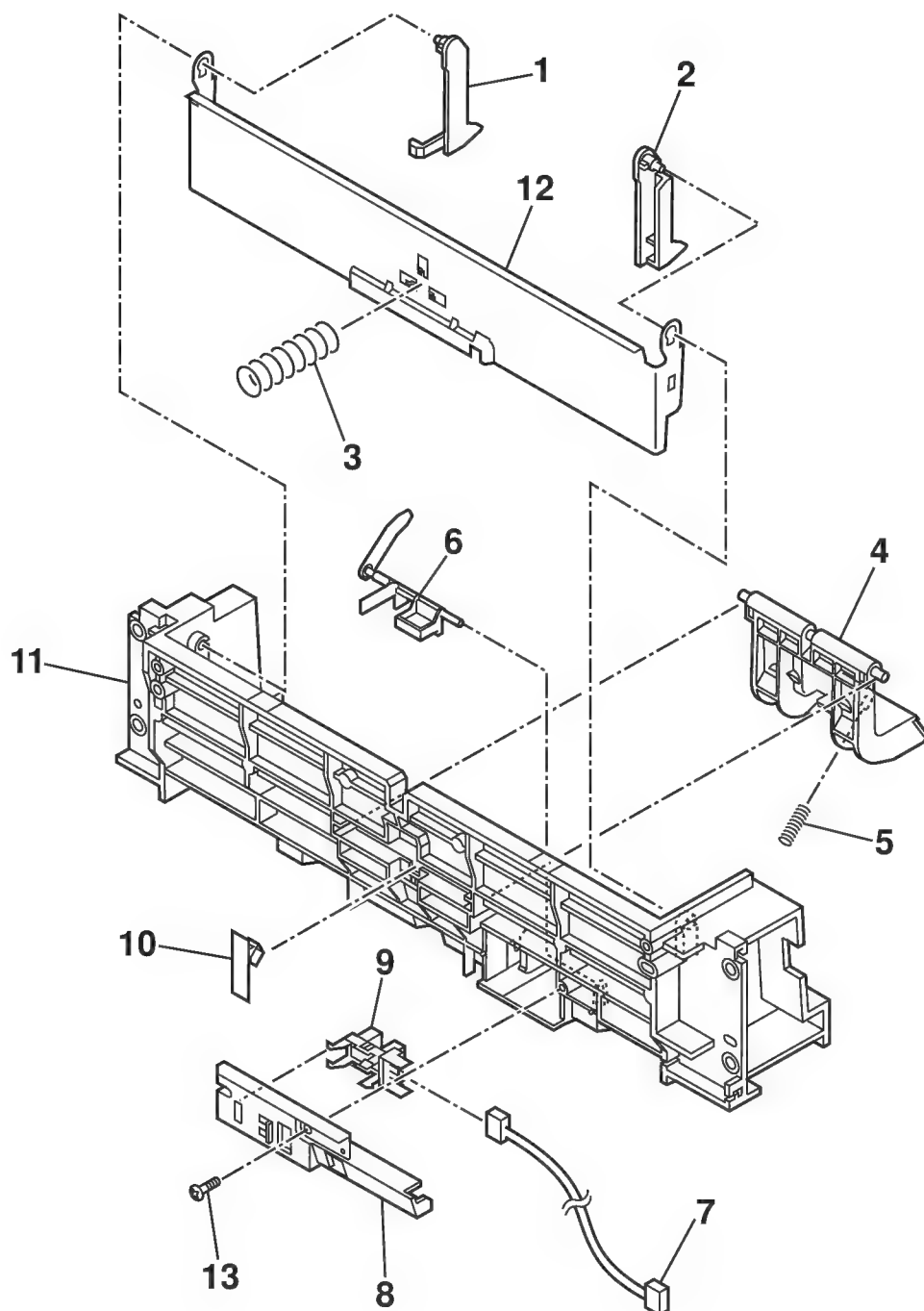


FIGURE & KEY No.	PART No.	R A N K	Q T Y	DESCRIPTION	REMARKS
17 -1	HB1-4268-000		1	ARM, PLATE,RIGHT	
2	RB1-7185-000		1	ARM, PLATE, LEFT	
3	HS5-2193-000		1	SPRING, COMPRESSION	
4	HB1-4265-000		1	PAD, SEPARATION	
5	RS5-2502-000		1	SPRING, COMPRESSION	
6	HB1-4266-000		1	ARM, DETECTION	
7	HH2-2955-000		1	CABLE WITH CONNECTOR, 3P	
8	HB1-4267-000		1	MOUNT, ARM,DETECTION	
9	WG8-5362-000		1	PHOTO-INTERRUPTER TLP1241	
10	RB1-7206-000		1	HOLDER, ARM	
11	HF5-0541-000		1	PICK-UP FRAME UNIT	
12	HF5-0542-000		1	PLATE, MIDDLE	
13	XB4-7300-807		1	SCREW, TAP TIGHT, BINDING HEAD	

FIGURE 18 TONER DETECTION ASS'Y

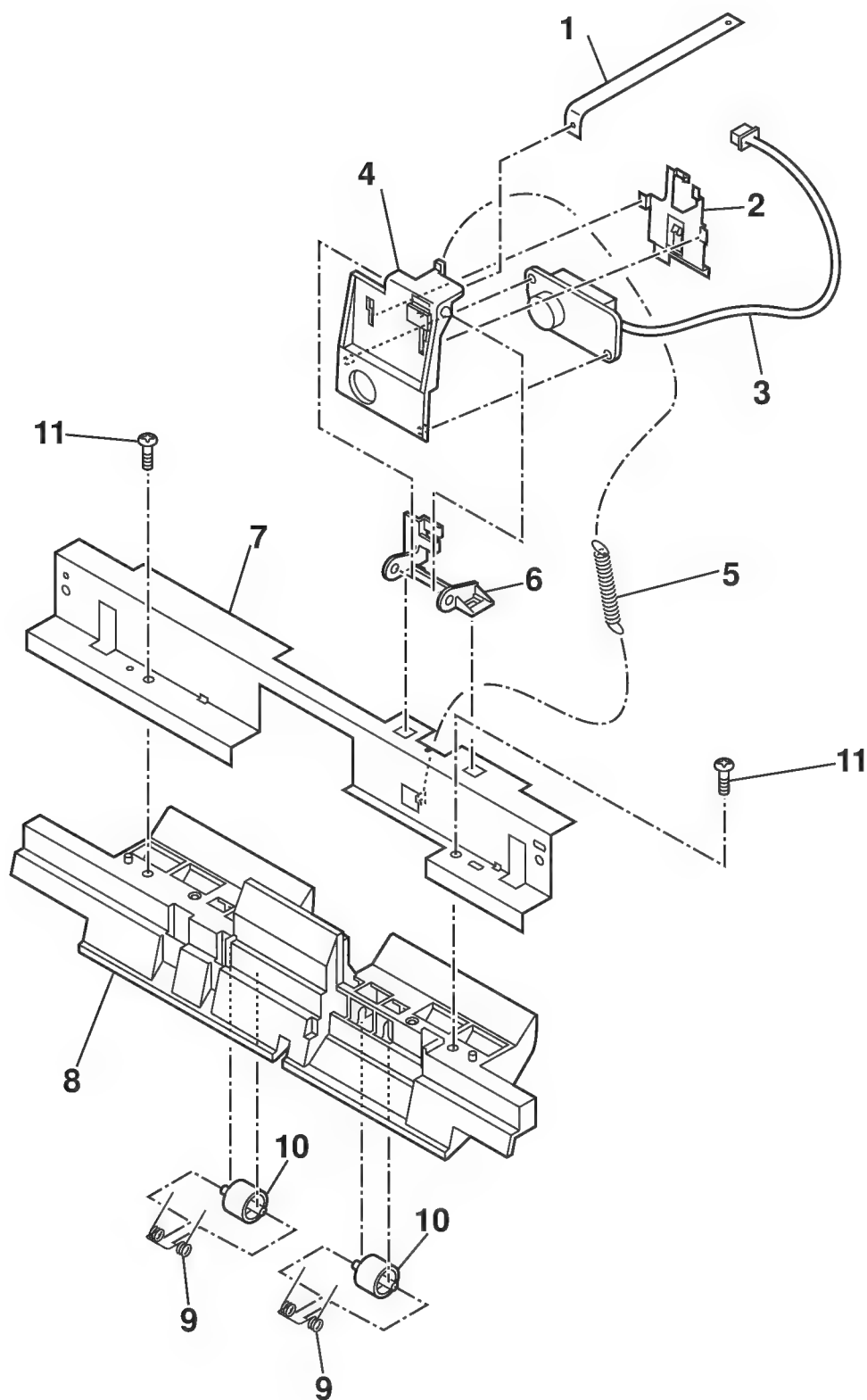
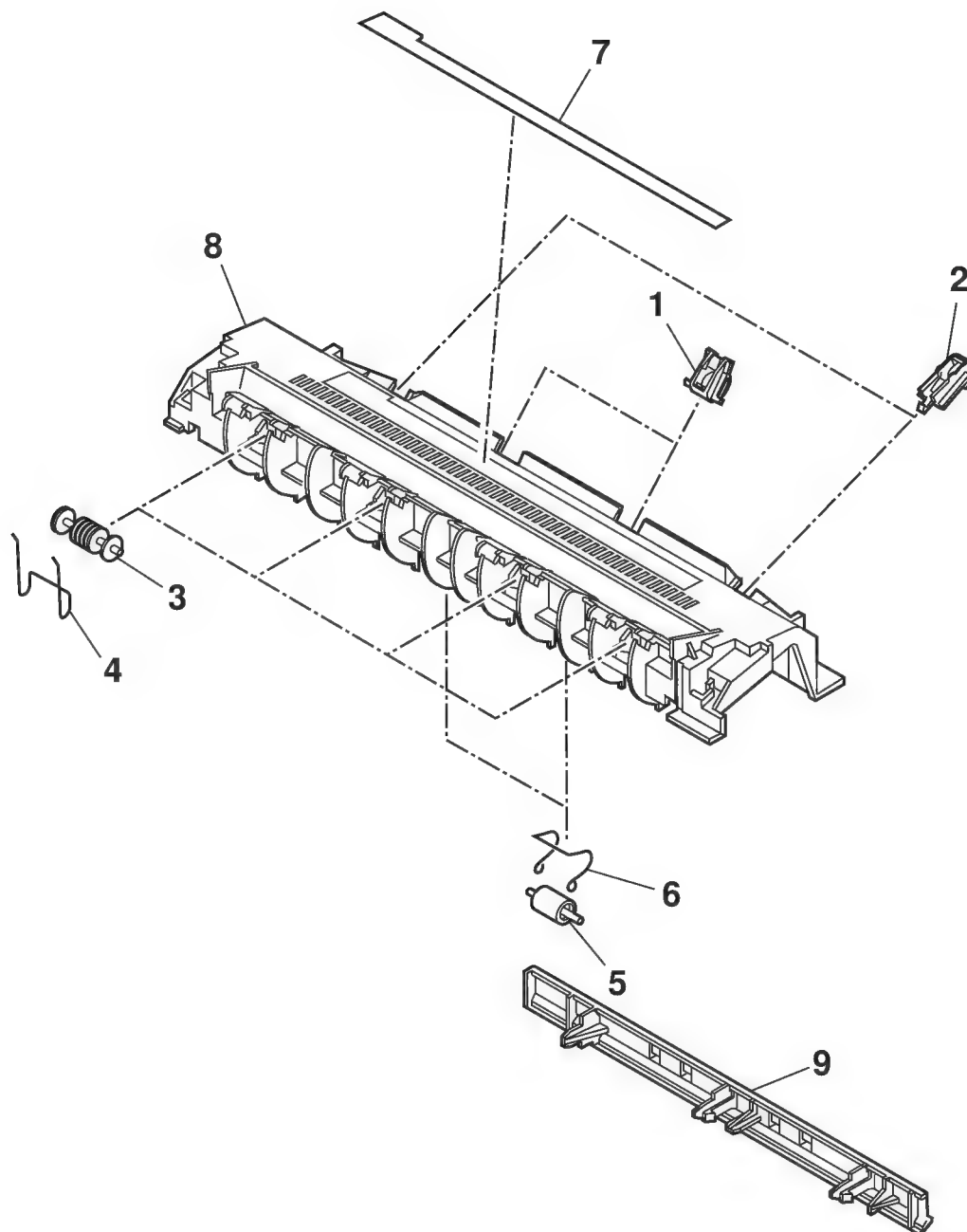


FIGURE 19 DELIEVRY ASS'Y



[illegible]

FIGURE 20 TRANSFER BLOCK ASS'Y

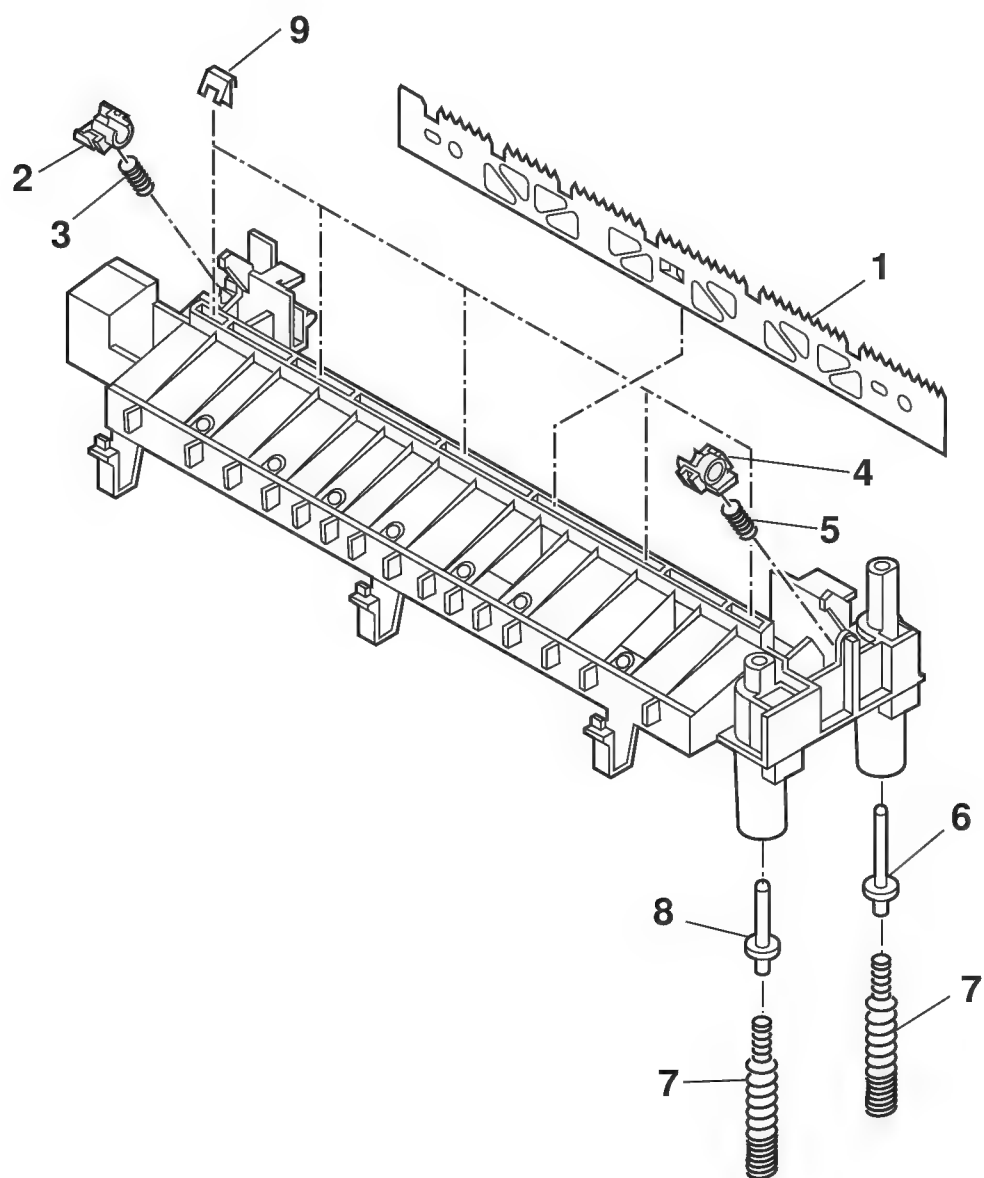


FIGURE 21 CASSETTE ASS'Y

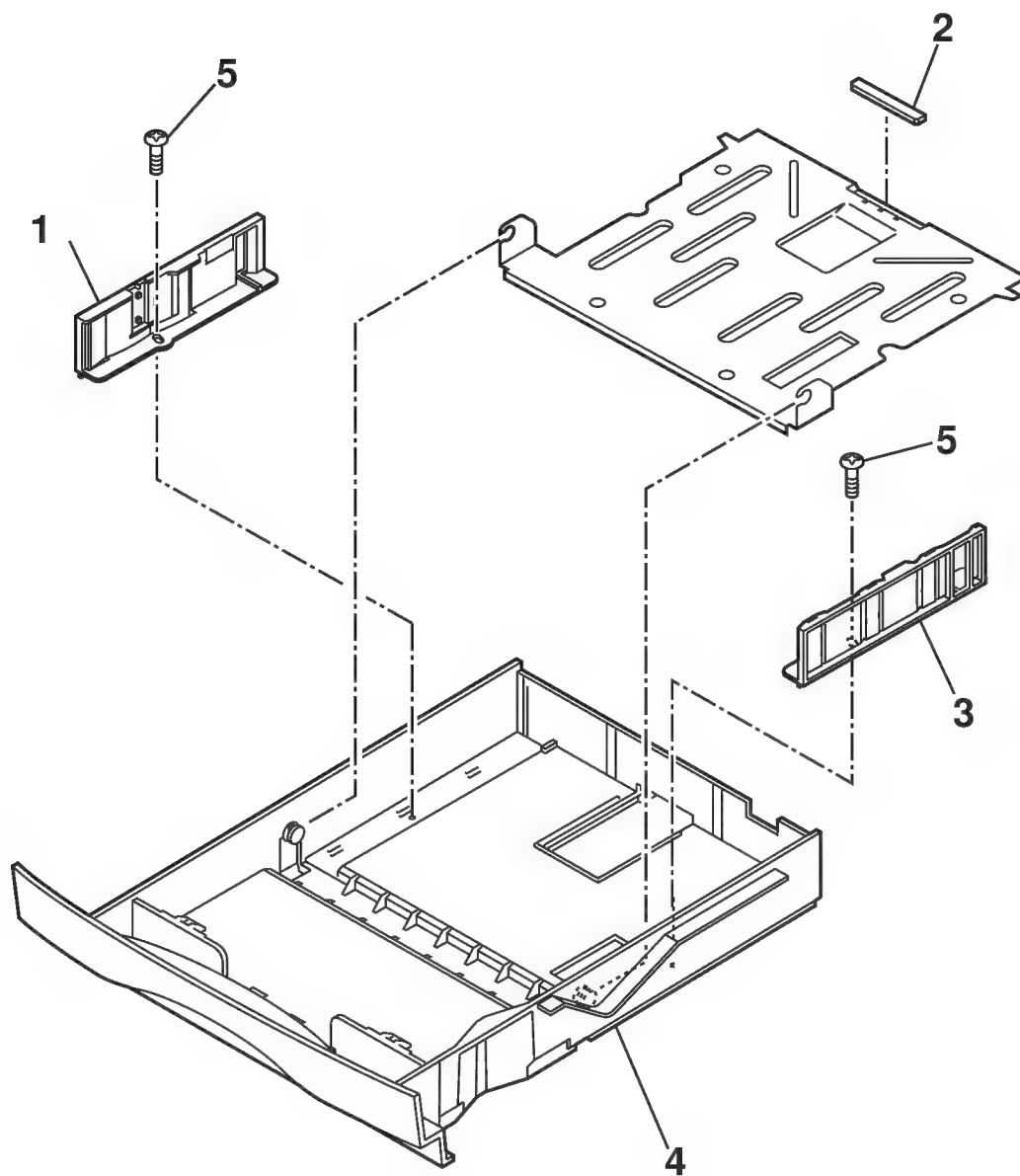


FIGURE 22 SCNT BOARD ASS'Y

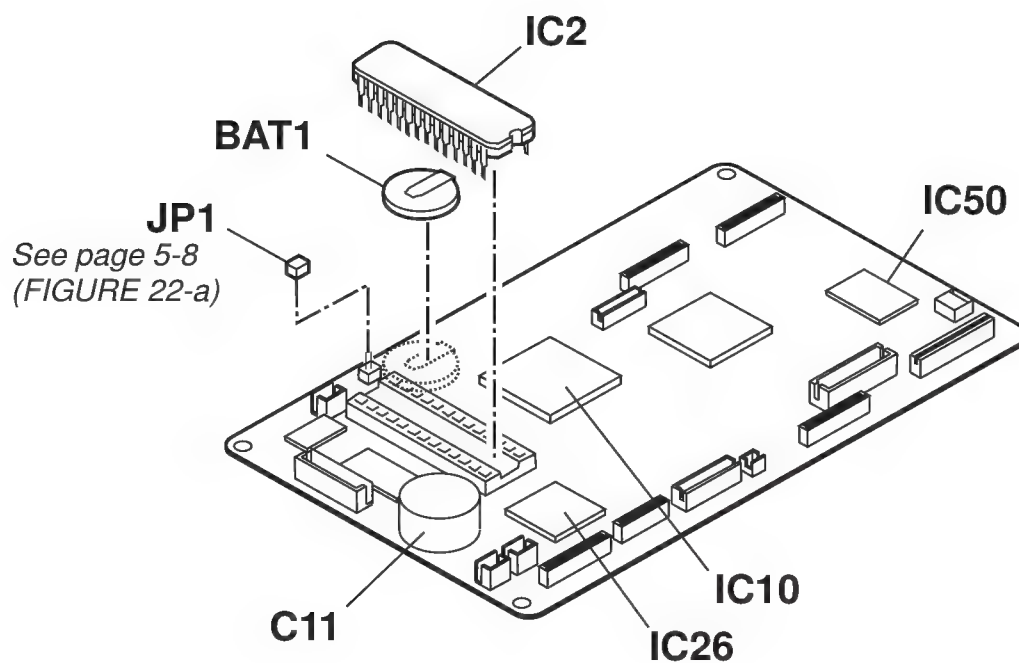


FIGURE 23 PCNT BOARD ASS'Y

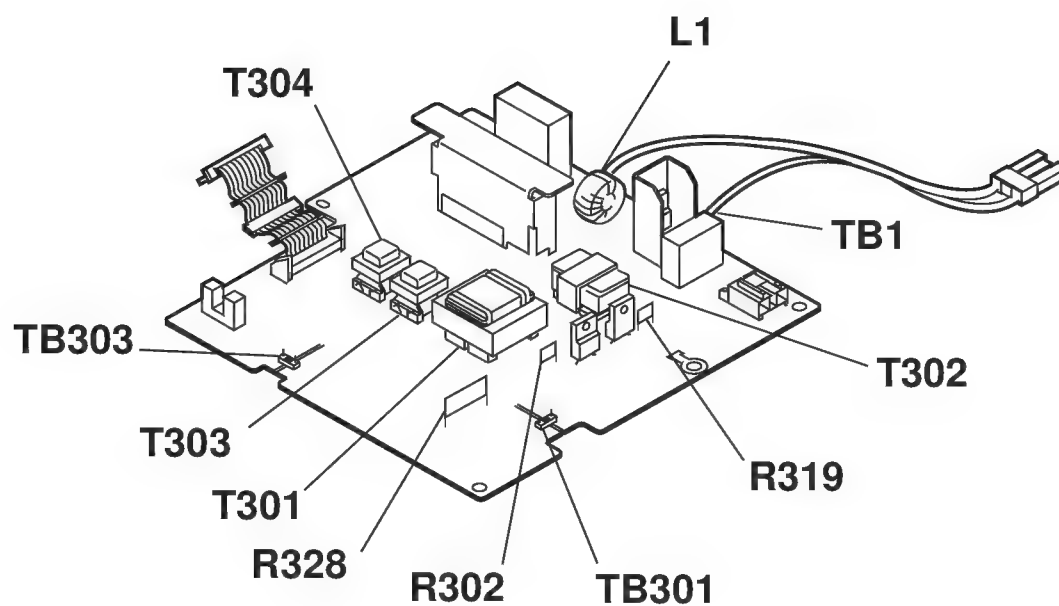


FIGURE & KEY No.	PART No.	R A N K	Q T Y	DESCRIPTION	REMARKS
23 - L1	HH3-5348-000		1	INDUCTOR	
R302	RH6-3384-000		1	RESISTOR, 3MOHM, 0.5W	
R319	RH6-3384-000		1	RESISTOR, 3MOHM, 0.5W	
R328	RH6-3858-000		1	RESISTOR, METAL	
T301	HH3-5338-000		1	TRANSFORMER, INVERTER, 22VA	
T302	HH3-5337-000		1	TRANSFORMER, INVERTER, 6.3VA	
T303	HH3-5336-000		1	TRANSFORMER, INVERTER, 1.5VA	
T304	HH3-5336-000		1	TRANSFORMER, INVERTER, 1.5VA	
TB1	HH2-2971-000		1	CABLE WITH CONNECTOR, 2P	
TB301	RH2-5330-000		1	CONNECTOR, 2P	
TB303	RH2-5330-000		1	CONNECTOR, 2P	

FIGURE 24 NCU BOARD ASS'Y

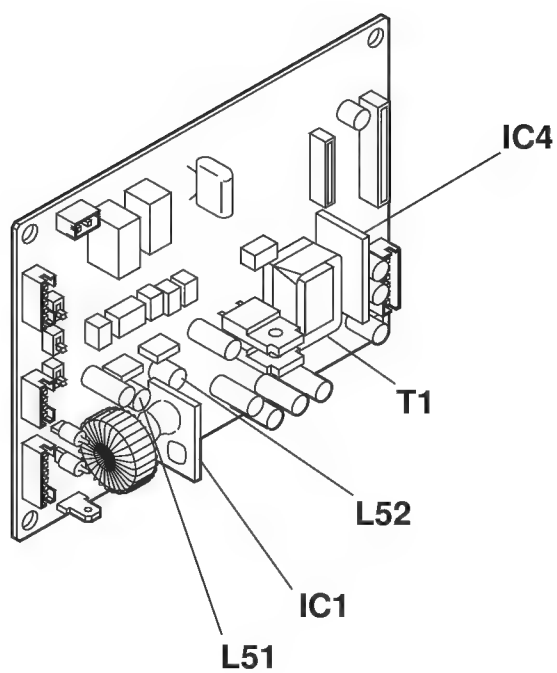


FIGURE 25 MODULAR BOARD ASS'Y

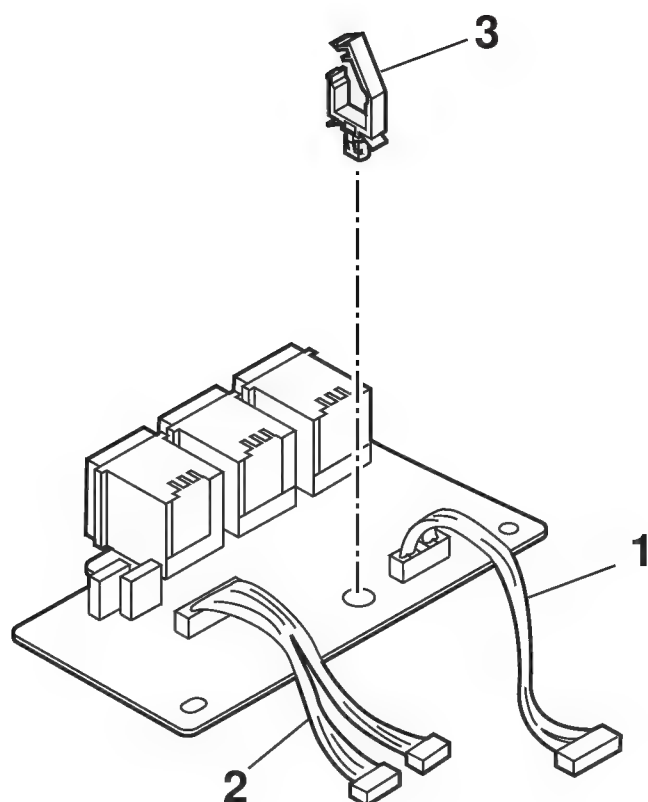
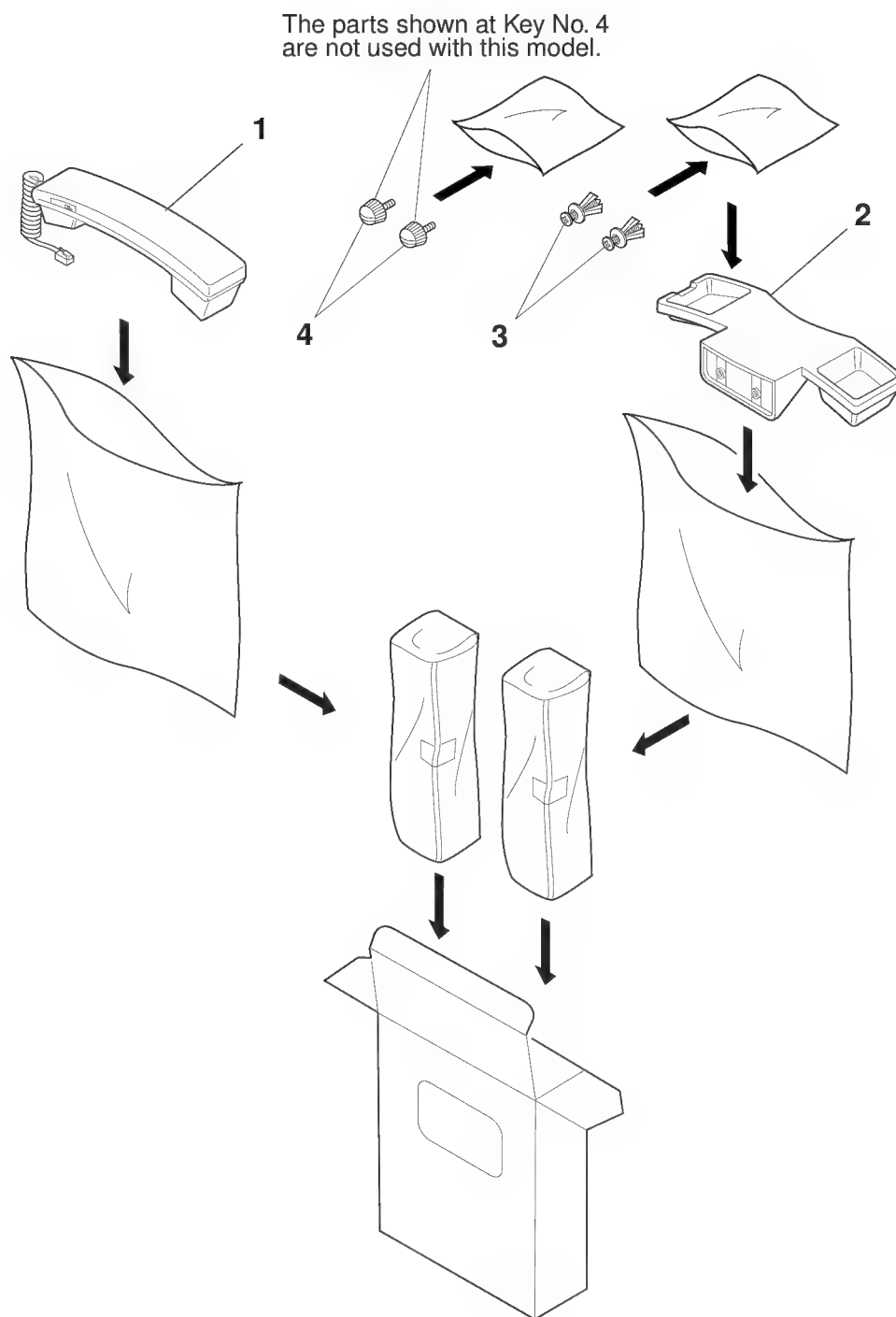
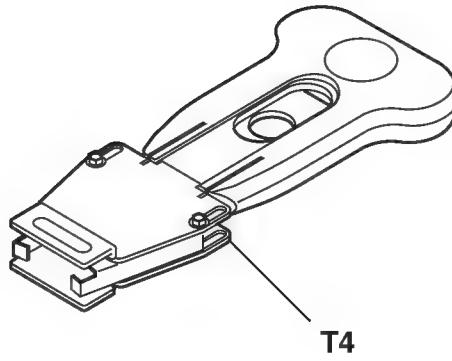
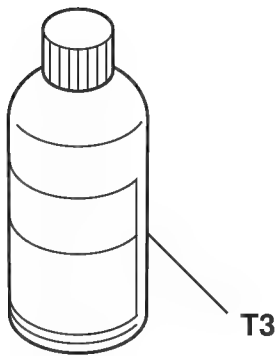
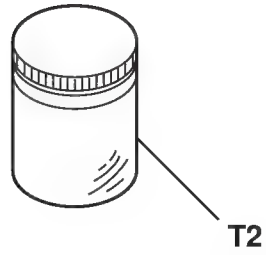
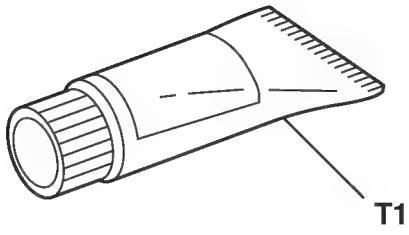


FIGURE 26 HANDSET KIT E3
HANDSET KIT U3



3.TOOL

FIGURE 27 TOOLS



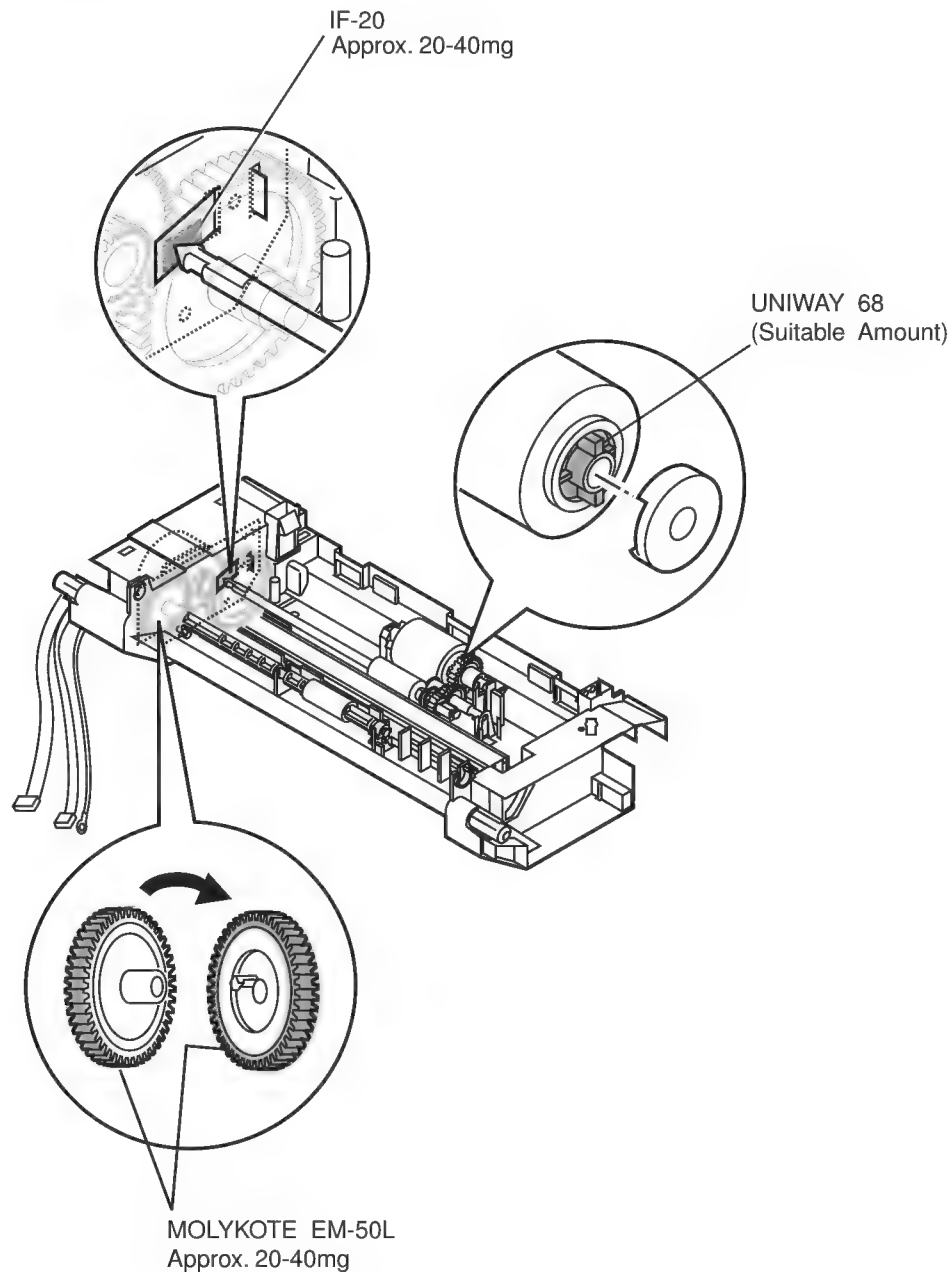
[illegible]

4. LUBRICATIONS

4.1 Locations

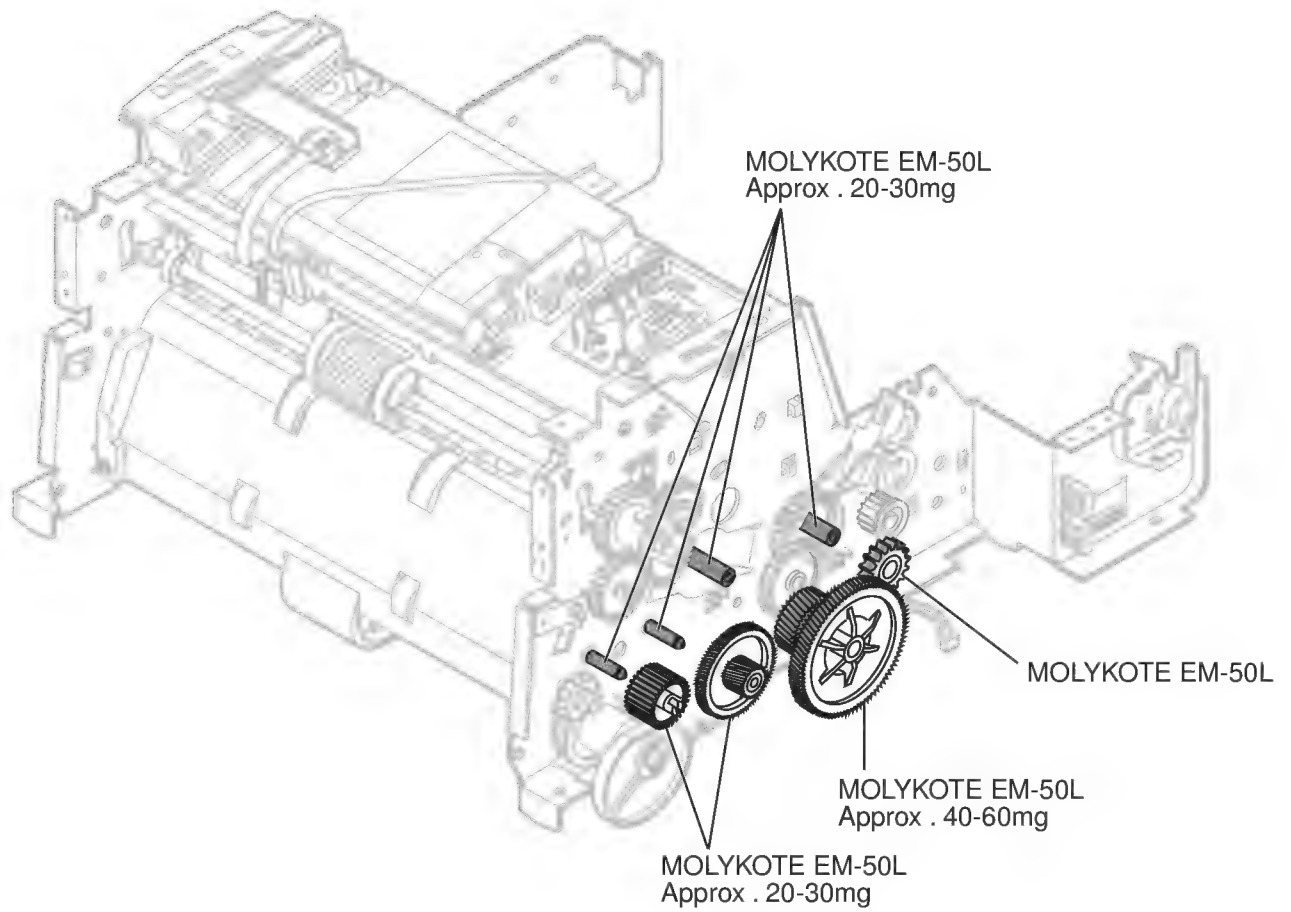
Some parts are lubricated with grease to ensure smooth operation and to increase conductivity. If lubricated parts are replaced or grease is removed, grease must be reapplied.

4.1.1 ADF LOWER



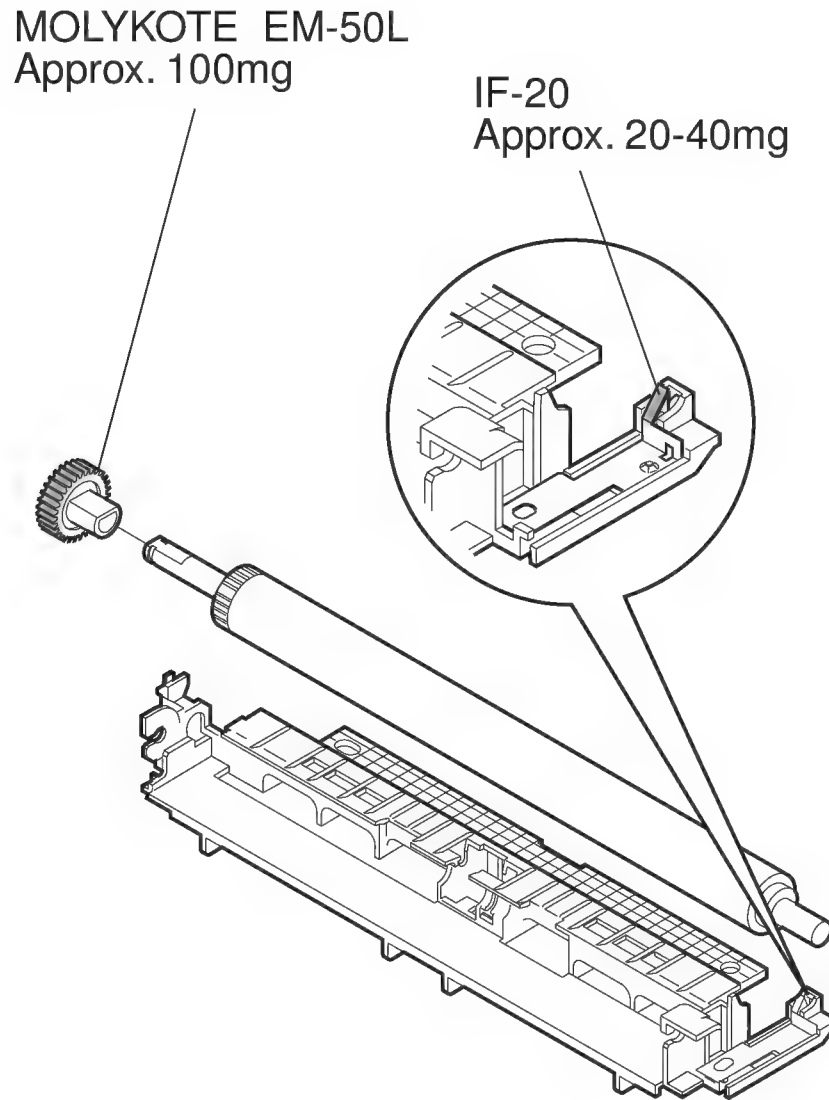
See FIGURE 11 for the disassembly

4.1.2 DRIVE GEARS



See FIGURE 14 for the disassembly

4.1.3 PRESSURE ROLLER & SEPARATION GUIDE ASS'Y



See FIGURE 15 for the disassembly

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5. GUIDE TO REPLACEMENT

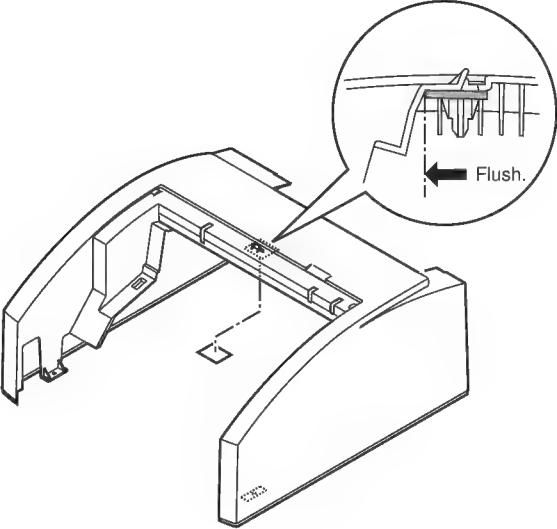
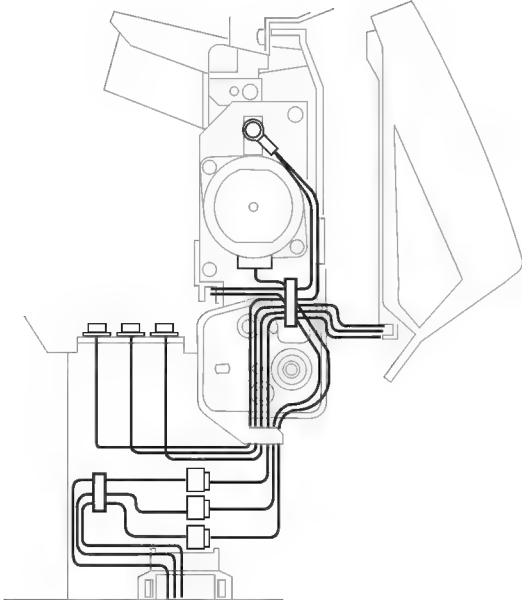
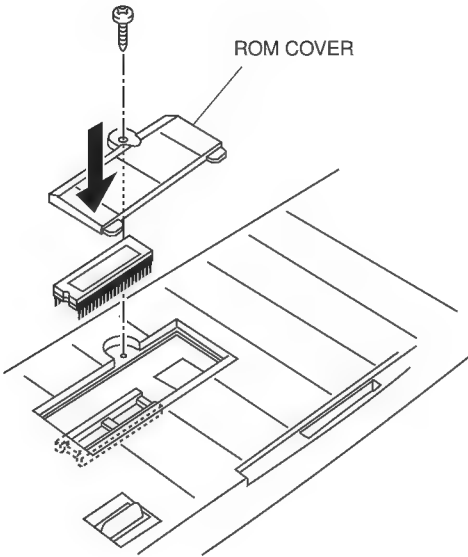
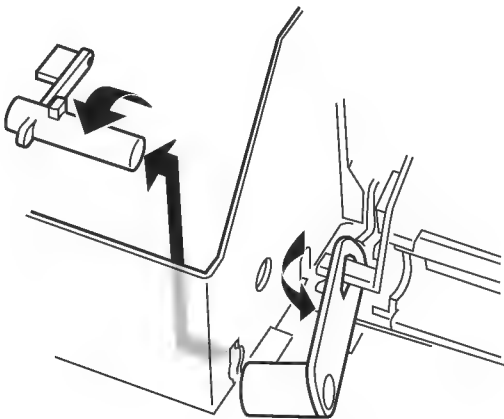
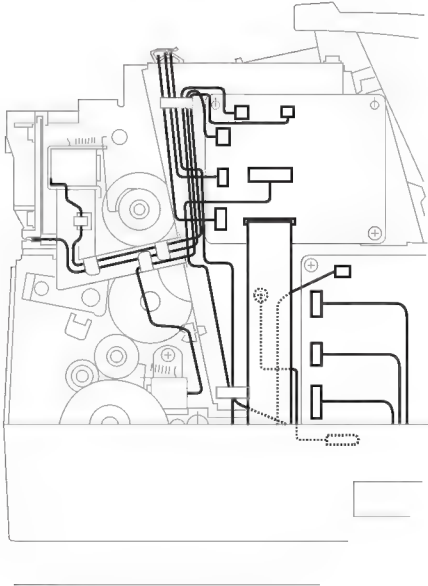
<p>FIGURE 2-a</p>	<p>See Page 2-3</p>	<p>FIGURE 3-a</p>	<p>See Page 2-5</p>
			
<p>Be sure to attach the sheet to the back of the front cover.</p>		<p>Route the cables as shown in the figure.</p>	
<p>FIGURE 4-a</p>	<p>See Page 2-7</p>	<p>FIGURE 4-b</p>	<p>See Page 2-7</p>
			
<p>The ROM is located under the ROM cover. To remove the ROM cover, push where indicated by an arrow.</p>		<p>Take care when removing or mounting the lever. To remove the lever, work as shown in the figure.</p>	

FIGURE 4-c

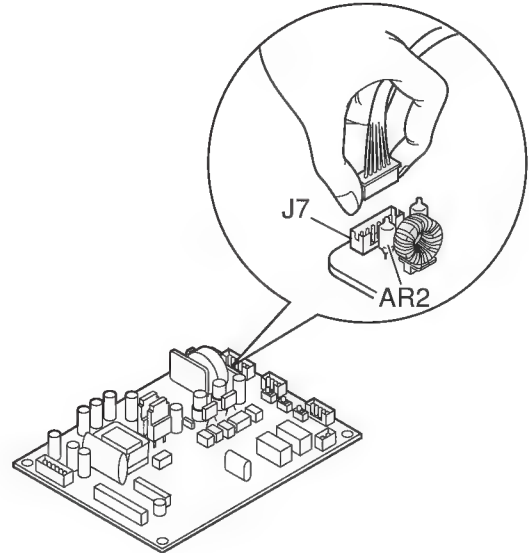
See Page
2-7



Route the cables as indicated.

FIGURE 4-d

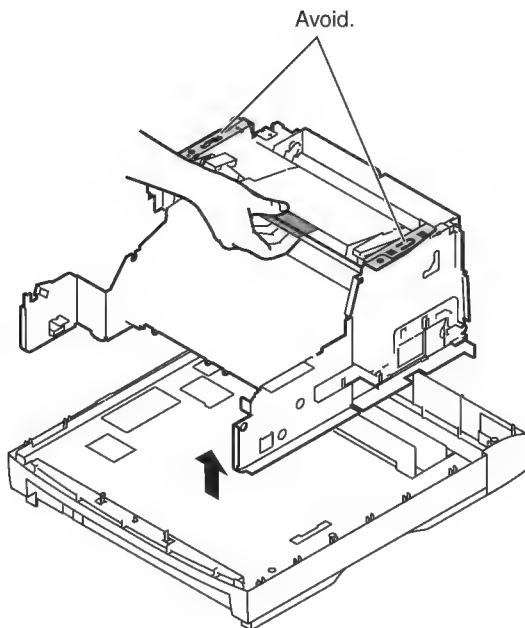
See Page
2-7



When attaching/removing the J7 connector, hold as shown in the figure and do not put pressure on the AR2 arrester.

FIGURE 5-a

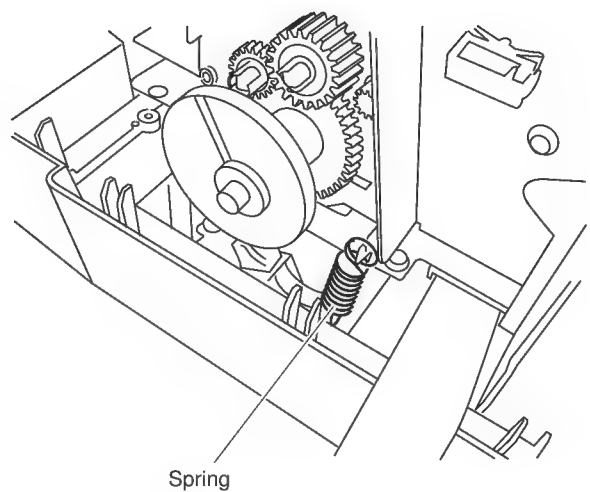
See Page
2-9



When lifting, be sure to hold as shown in the figure.

FIGURE 5-b

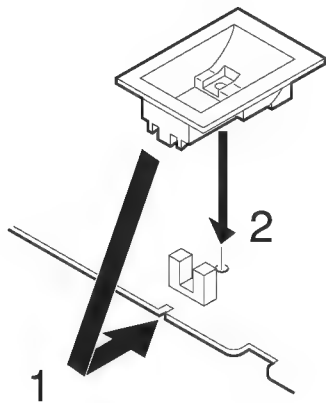
See Page
2-9



Be sure not to leave out the spring.

FIGURE 6-a

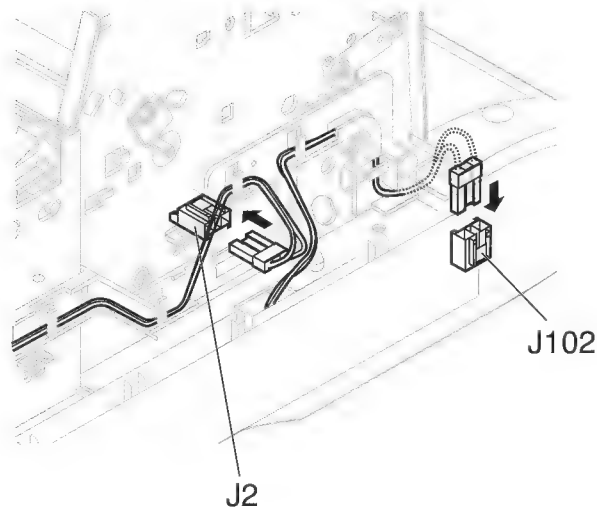
See Page
2-11



To attach the WATER PROOF COVER to the PCNT board, slide it into position (1) and press down to secure (2).

FIGURE 6-b

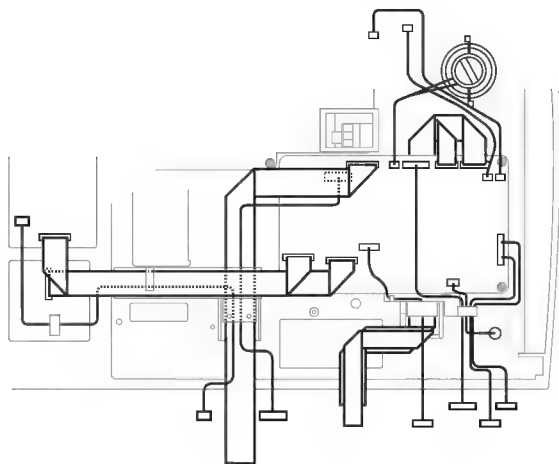
See Page
2-11



Be sure not to leave out the cable. Work as shown in the figure.

FIGURE 6-c

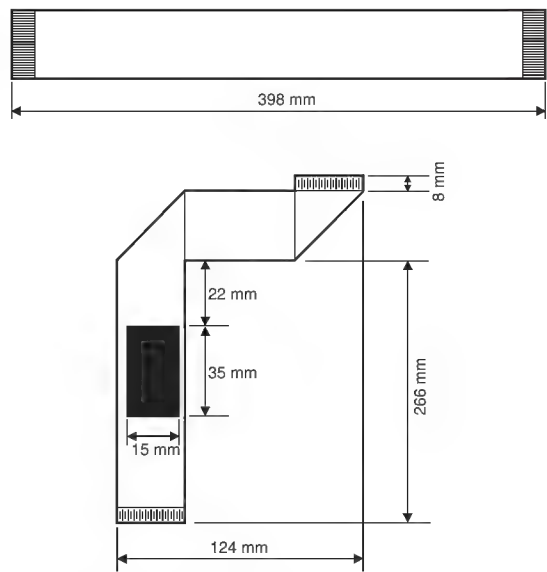
See Page
2-11



Route the cables as shown in the figure.

FIGURE 6-d

See Page
2-11

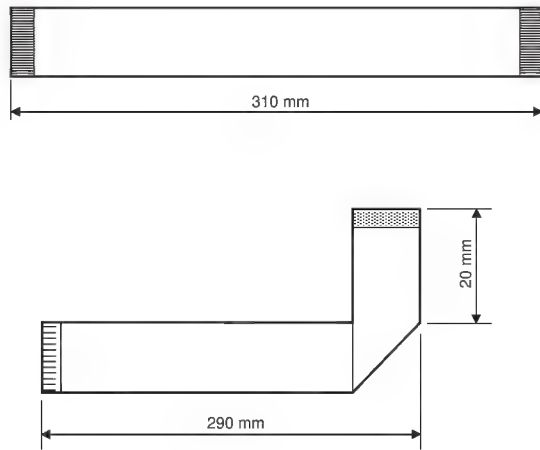


Attach double-sided adhesive tape to the underside of the shaded area ■.

Fold the flat cable as shown in the figure.

FIGURE 6-e

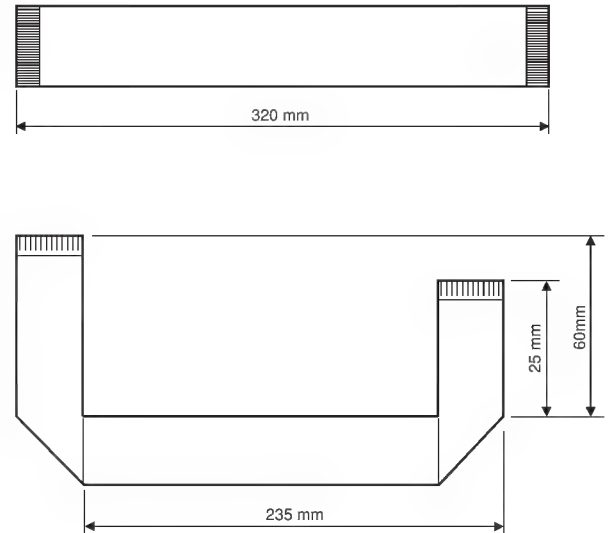
See Page
2-11



Fold the flat cable as shown in the figure.

FIGURE 6-f

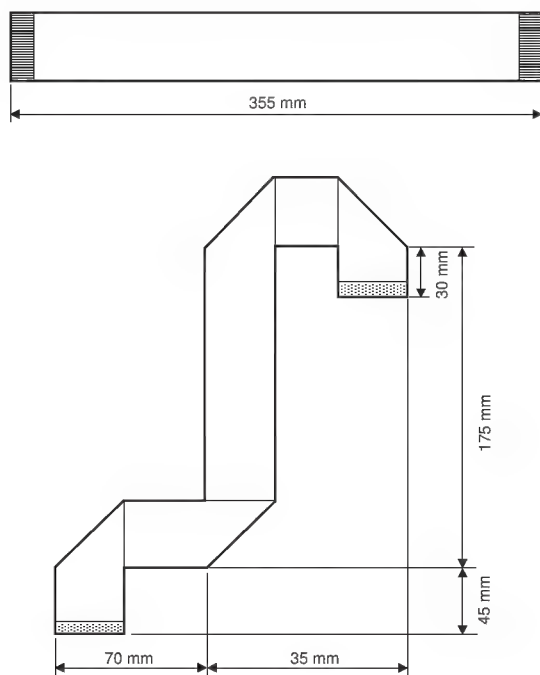
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2-11



Fold the flat cable as shown in the figure.

FIGURE 7-a

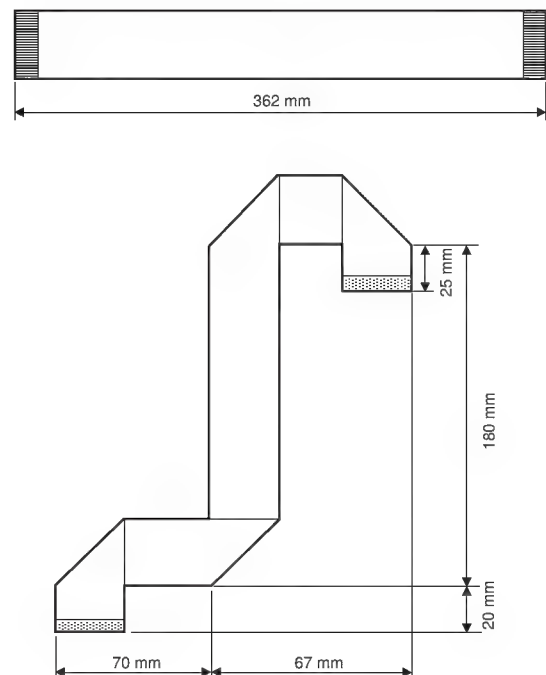
See Page
2-13



Fold the flat cable as shown in the figure.

FIGURE 7-b

See Page
2-13



Fold the flat cable as shown in the figure.

FIGURE 7-c

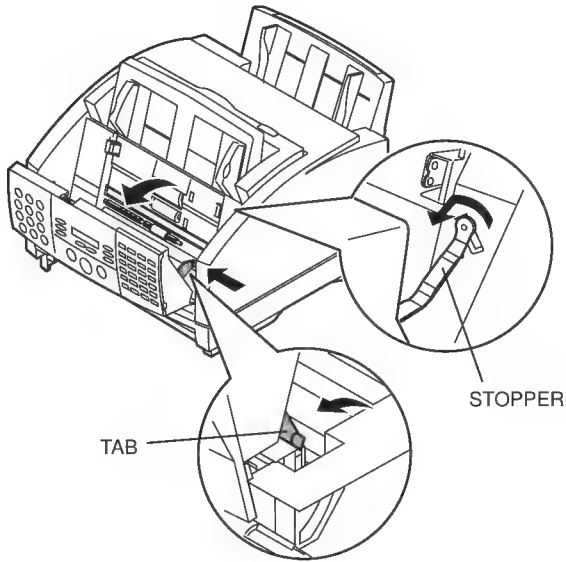
See Page
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Attach the sheet over the hole in the separation pad as shown in the figure.

FIGURE 9-a

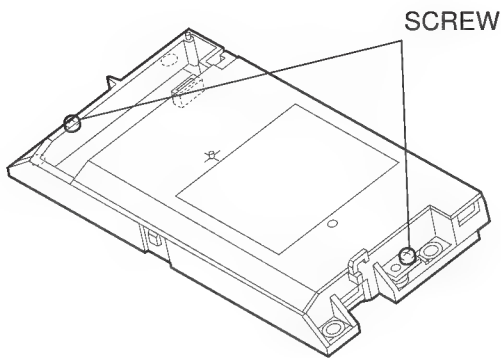
See Page
2-17



To open the control panel, turn the stopper to the left and pull out to the front, then shift the tab as shown in the figure.

FIGURE 12-a

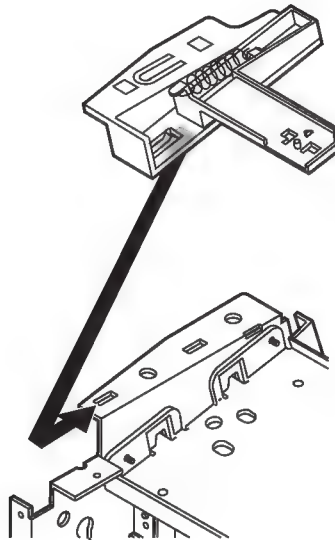
See Page
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Do not loosen or remove the two black screws on the SCANNER ASS'Y.

FIGURE 12-b

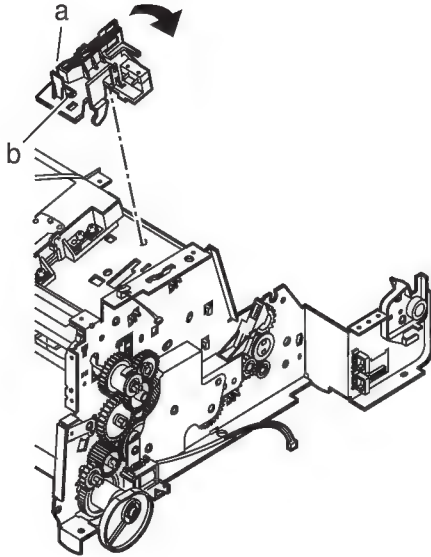
See Page
2-23



Attach the ACTUATOR BASE retaining clip to the frame as shown by the arrow.

FIGURE 12-c

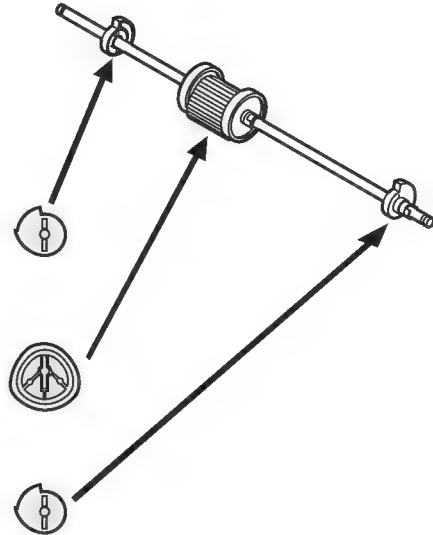
See Page
2-23



To attach the SWITCH LEVER ASS'Y: with portion (a) lifted up, and while continuing to press upward on pin (b), rotate the ass'y in the arrow's direction.

FIGURE 12-d

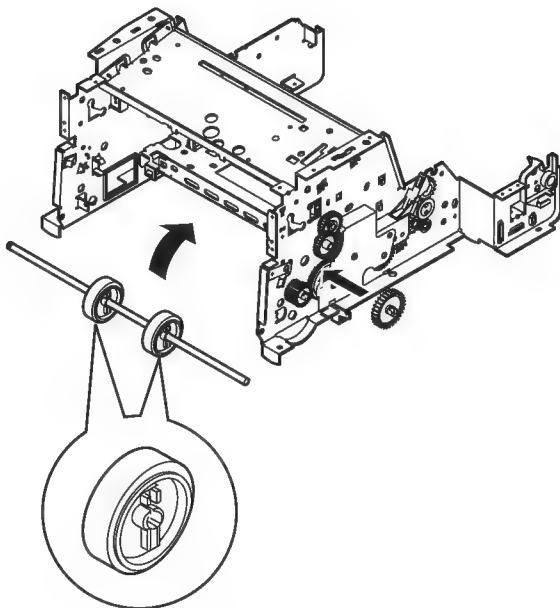
See Page
2-23



When assembling the PICKUP ROLLER ASS'Y, be careful that the cams and roller are correctly aligned.

FIGURE 14-a

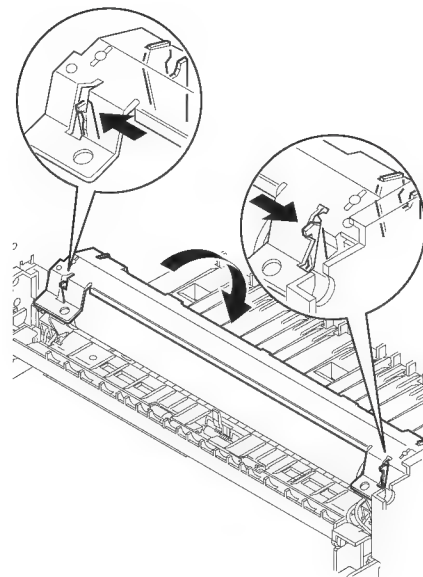
See Page
2-27



When mounting the feed roller, be sure to pay attention to its orientation.

FIGURE 15-a

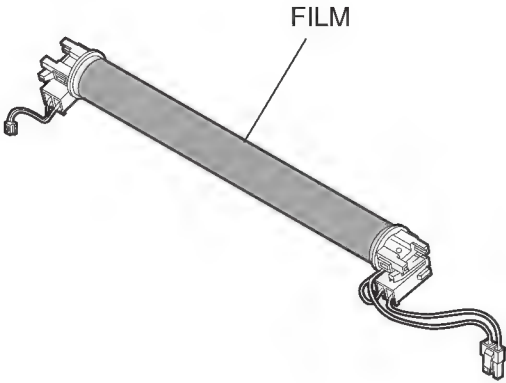
See Page
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When removing the PRESSURE PLATE, use a fine screwdriver to press the clips outward and unhook them.

FIGURE 15-b

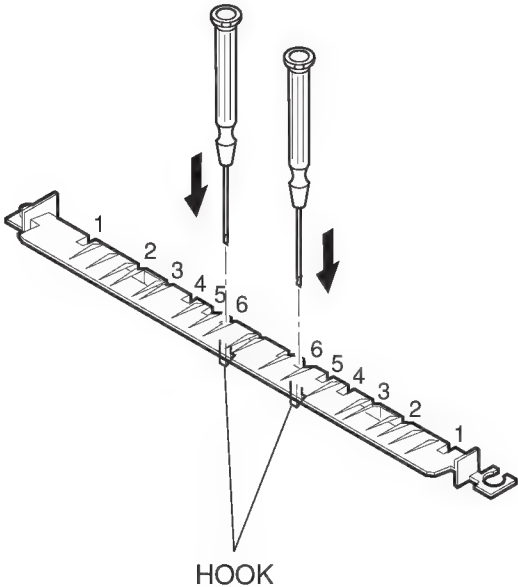
See Page
2-29



Be careful not to touch the film on the FIXING ASS'Y with your hands.

FIGURE 15-c

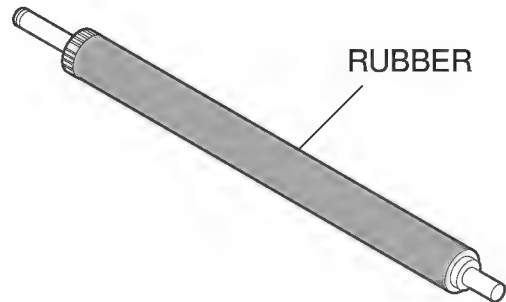
See Page
2-29



Insert a fine screwdriver into the sixth holes from both left and right ends to unhook the retaining clips.

FIGURE 15-d

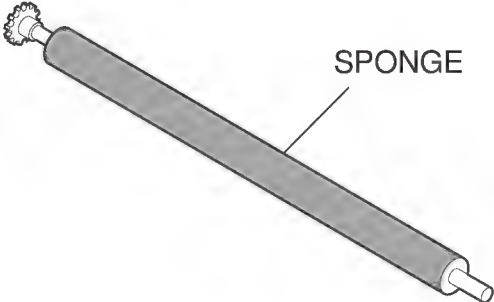
See Page
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Do not touch the rubber portion of the PRESSURE ROLLER with your hands.

FIGURE 16-a

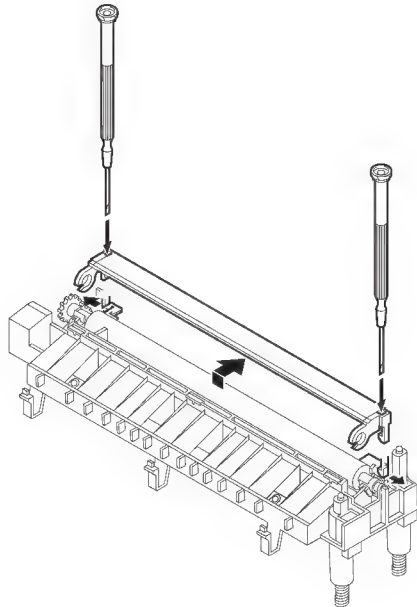
See Page
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Do not touch the sponge portion of the TRANSFER ROLLER with your hands.

FIGURE 16-b

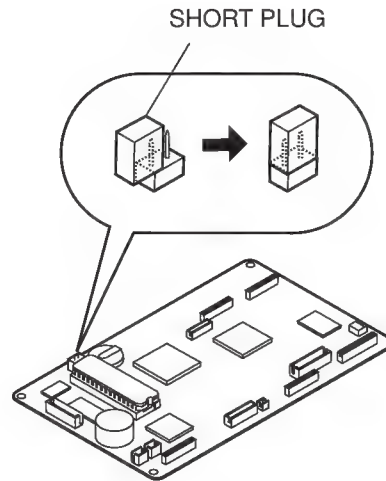
See Page
2-31



When removing the TRANSFER GUIDE, use a fine screwdriver to unhook the retaining clips.

FIGURE 22-a

See Page
2-43



The service part version of the SCNT board has a SHORT PLUG on one of the pins. When replacing the SCNT board, cover both pins with the plug. If both pins of the SCNT board service part are already by the plug, DO NOT INSTALL THE PART; the backup battery may be significantly depleted. When installing, be careful to avoid electrostatic damage to board components.

6. NUMERICAL INDEX

PART NUMBER	FIGURE & KEY NO.	DESCRIPTION	PART NUMBER	FIGURE & KEY NO.	DESCRIPTION
CK-0451-000	27 - T3	LUBE, UNIWAY 68, OIL	HB1-4296-000	7 - 6	GUIDE, CASSETTE,PAPER FEED
CK-8006-000	27 - T2	ELECTRICITY GREASE (IF-20)	HB1-4297-000	7 - 7	PAD, SEPARATION
FA3-8727-000	12 - 12	RETAINING RING	HB1-4298-000	7 - 8	SUPPORT, SEPARATION PAD
	13 - 6		HB1-4299-000	6 - 3	ARM, DETECTION (RPS)
	14 - 9		HB1-4300-000	6 - 5	MOUNT, ARM,DETECTION
FA4-1159-000	13 - 22	RETAINING RING	HB1-4301-000	7 - 4	GUIDE, CABLE,NCU
HA2-0868-000	1 - 10	LABEL, MERCURY	HB1-4307-000	11 - 8	ROLLER, DOCUMENT FEED
HB1-1264-000	26 - 2	HOLDER, HANDSET CRADLE	HB1-4309-000	10 - 12	FRAME, ADF UPPER
HB1-1779-000	11 - 5	SPACER	HB1-4310-000	10 - 27	ARM, DETECTION (DES)
HB1-1848-000	16 - 4	STOP, CARTRIDGE	HB1-4311-000	10 - 10	ARM, DETECTION (DS)
HB1-1867-000	13 - 15	ARM, DETECTION (PES)	HB1-4313-000	10 - 19	GUIDE, DOCUMENT EJECT
HB1-1868-020	13 - 17	HOLDER, PES	HB1-4314-000	10 - 21	LEVER, DOCUMENT RELEASE
HB1-1885-000	7 - 13	LEVER, LIFTING	HB1-4315-000	10 - 22	CLAW, DOCUMENT RELEASE
HB1-1886-020	7 - 12	ARM, LIFTING	HB1-4316-000	1 - 9	LABEL, WARNING
HB1-2580-000	20 - 9	TR SLOPE	HB1-4317-000	10 - 11	STOPPER, DOCUMENT
HB1-2864-000	10 - 25	ROLLER, BACK UP	HB1-4318-000	10 - 5	HOLDER, SENSOR
HB1-2866-000	10 - 13	PLATE, PRESSURE	HB1-4321-000	9 - 1	COVER, DOCUMENT GUIDE,LOWER
HB1-2867-000	9 - 2	STOPPER, OPERATION PANEL	HB1-4322-000	8 - 12	COVER, GEAR
HB1-2883-000	8 - 4	SLIDER, RACK	HB1-4323-000	8 - 9	COVER, FRONT
HB1-3008-000	2 - 7	RACK	HB1-4324-000	8 - 11	DUCT, AIR
HB1-3011-040	18 - 4	HOLDER, TONER SENSOR	HB1-4325-000	8 - 10	LEVER, ADF RELEASE
HB1-3012-000	18 - 2	SUPPORTER, TONER SENSOR	HB1-4326-000	7 - 1	GUIDE, CABLE,PCNT
HB1-3018-000	12 - 2	STOPPER, TAPE	HB1-4327-000	8 - 1	GUIDE, DOCUMENT FEED,LEFT
HB1-3023-000	6 - 8	HOLDER, SPEAKER	HB1-4328-000	8 - 2	GUIDE, DOCUMENT FEED,RIGHT
HB1-3036-000	11 - 21	PLATE, GROUNDING	HB1-4329-000	8 - 15	COVER, DOCUMENT
HB1-3418-000	12 - 3	SPRING, GROUNDING	HB1-4330-000	8 - 7	GUIDE, PAPER EJECT
HB1-3697-000	11 - 4	ROLLER, SEPARATION	HB1-4331-000	4 - 2	GUIDE, PAPER EJECT
HB1-4072-000	10 - 18	BRUSH, STATIC DISCHARGE	HB1-4332-000	4 - 1	COVER, ROM
HB1-4258-000	4 - 15	COVER, PAPER EJECT, FACE DOWN	HB1-4333-000	4 - 3	LEVER
HB1-4259-000	4 - 13	ARM, OVERFLOW DETECT	HB1-4334-000	2 - 6	TRAY, PAPER FEED
HB1-4260-000	4 - 12	COVER, OVERFLOW SENSOR	HB1-4335-000	2 - 9	COVER, GEAR
HB1-4261-000	4 - 18	SHEET		8 - 6	
HB1-4265-000	17 - 4	PAD, SEPARATION	HB1-4336-000	2 - 4	GUIDE, PAPER FEED,LEFT
HB1-4266-000	17 - 6	ARM, DETECTION	HB1-4337-000	2 - 5	GUIDE, PAPER FEED,RIGHT
HB1-4267-000	17 - 8	MOUNT, ARM,DETECTION	HB1-4338-000	2 - 3	GUIDE, PAPER FEED TRAY
HB1-4268-000	17 - 1	ARM, PLATE,RIGHT	HB1-4339-000	2 - 2	TRAY, PAPER FEED
HB1-4271-000	18 - 6	SUPPORT, TONER SENSOR	HB1-4340-000	2 - 1	TRAY, PAPER FEED,EXTENSION
HB1-4272-000	18 - 8	GUIDE, PAPER FEED	HB1-4343-000	21 - 4	BODY, CASSETTE
HB1-4273-000	18 - 7	GUIDE, TONER SENSOR	HB1-4344-000	21 - 3	GUIDE, PAPER WIDTH,RIGHT
HB1-4277-000	14 - 15	ROLLER, FEED	HB1-4346-000	2 - 12	COVER, UPPER
HB1-4279-000	13 - 12	GUIDE, PAPER FEED	HB1-4347-000	3 - 1	COVER, POWER SUPPLY
HB1-4280-000	5 - 4	COVER, RELEASE	HB1-4348-000	1 - 3	TRAY, DOCUMENT
HB1-4281-000	5 - 1	COVER, UPPER,RELEASE	HB1-4349-000	1 - 4	TRAY, DOCUMENT,EXTENSION
HB1-4282-000	13 - 9	ROLLER, PICK-UP	HB1-4351-000	3 - 3	GUIDE, CABLE
HB1-4283-000	13 - 7	ROLLER, FEED	HB1-4352-000	4 - 4	SUPPORT, LEVER
HB1-4284-000	13 - 11	PLATE, PAPER GUIDE	HB1-4353-000	4 - 5	SHAFT, SUPPORT,LEVER
HB1-4285-000	12 - 7	CLUTCH, PAPER PICK-UP	HB1-4354-000	5 - 5	PIVOT
HB1-4286-000	13 - 8	CLUTCH	HB1-4357-000	1 - 5	LABEL, DESTINATION
HB1-4287-000	16 - 3	STOPPER, CARTRIDGE	HB1-4359-000	4 - 9	COVER, CABLE,MCNT
HB1-4288-000	4 - 10	GUIDE, CABLE	HB1-4360-000	1 - 2	TRAY, SUPPORT
HB1-4289-000	7 - 10	MOUNT, SHAFT	HB1-4361-000	4 - 21	SPACER
HB1-4291-000	7 - 18	COVER, BOTTOM		7 - 22	
HB1-4295-000	6 - 17	GUIDE, CABLE,SCNT	HB1-4362-000	8 - 8	SHEET

PART NUMBER	FIGURE & KEY NO.	DESCRIPTION	PART NUMBER	FIGURE & KEY NO.	DESCRIPTION
HB1-4365-000	10 - 17	SHEET, BRUSH, STATIC DISCHARGE	HH2-2959-000	6 - 14	CABLE WITH CONNECTOR, 9P
HB1-4367-000	18 - 1	SHEET	HH2-2960-000	11 - 3	CABLE WITH CONNECTOR, 9P
HB1-4368-000	7 - 21	COVER, SENSOR	HH2-2961-000	11 - 2	CABLE, FLAT, 12P
HB1-4369-000	7 - 2	SHEET	HH2-2962-000	6 - 22	CABLE WITH CONNECTOR, 2P
HB1-4370-000	12 - 18	PLATE, SCANNER	HH2-2964-000	6 - 15	CABLE WITH CONNECTOR, 6P
HB1-4371-000	10 - 3	SHEET, OPERATION PANEL	HH2-2965-000	11 - 20	WIRE, GROUNDING
HB1-4372-000	10 - 4	SHEET, FUNCTION	HH2-2966-000	10 - 28	WIRE, GROUNDING
HB1-4373-000	10 - 1	COVER, ONE TOUCH DAIL	HH2-2967-000	4 - 8	WIRE, GROUNDING
HB1-4376-000	10 - 3	SHEET, OPERATION PANEL	HH2-2968-000	4 - 28	CABLE WITH CONNECTOR, 3P
HB1-4377-000	10 - 4	SHEET, FUNCTION	HH2-2969-000	25 - 1	CABLE WITH CONNECTOR, 6P
HB1-4378-000	10 - 3	SHEET, OPERATION PANEL	HH2-2971-000	23 - TB1	CABLE WITH CONNECTOR, 2P
HB1-4379-000	10 - 4	SHEET, FUNCTION	HH2-2977-000	25 - 2	CABLE WITH CONNECTOR, 9P
HB1-4380-000	2 - 14	SHEET	HH2-2978-000	10 - 6	CABLE WITH CONNECTOR, 3P
HB1-4383-000	6 - 18	SHEET	HH2-2992-000	7 - 17	CABLE WITH CONNECTOR, 2P
HB1-4384-000	13 - 24	SHEET	HH3-5335-000	3 - 2	POWER SUPPLY UNIT
HF5-0399-000	10 - 15	WHITE SHEET UNIT	HH3-5336-000	23 - T303	TRANSFORMER, INVERTER, 1.5VA
HF5-0540-000	16 - 5	LOCK, RELEASE COVER		23 - T304	
HF5-0541-000	17 - 11	PICK-UP FRAME UNIT	HH3-5337-000	23 - T302	TRANSFORMER, INVERTER, 6.3VA
HF5-0542-000	17 - 12	PLATE, MIDDLE	HH3-5338-000	23 - T301	TRANSFORMER, INVERTER, 22VA
HF5-0543-000	11 - 18	ROLLER, DOCUMENT EJECT	HH3-5348-000	23 - L1	INDUCTOR
HF5-0544-000	11 - 12	LOCK, OPERATION PANEL	HH3-5357-000	3 - 2	POWER SUPPLY UNIT
HF5-0545-000	21 - 1	GUIDE, PAPER WIDTH, LEFT	HH4-3235-000	22 - IC501	IC, MBCU34102-105, MCU
HF5-0547-000	12 - 10	PICK-UP ROLLER UNIT	HH4-3236-000	22 - IC10	IC, HG73C051FD, GATE-ARRAY
HG5-1308-000	10 - 8	SEPARATION GUIDE ASS'Y	HH4-3300-000	22 - IC26	IC, UPD703102GJ-A33-024-8EU
HG5-2043-000	4 - 7	NCU BOARD ASS'Y	HH4-3340-000	22 - IC2	IC, MR27V1652D, MASK-ROM
HG5-2048-000	4 - 7	NCU BOARD ASS'Y	HH4-3369-000	1 - 11	CD-ROM, DRIVER SOFTWARE
HG5-2180-000	12 - 1	ACTUATOR UNIT	HH7-2240-000	24 - L51	FIXED INDUCTOR TSU-FL 474
HG5-2186-000	13 - 3	CAM UNIT		24 - L52	
HG5-2210-000	1 - 6	CASSETTE ASS'Y (A4)	HH7-2408-000	26 - 1	HANDSET UNIT
HG5-2218-000	6 - 1	SCNT BOARD ASS'Y	HH7-2415-000	13 - 1	SOLENOID
HG5-2221-000	6 - 2	PCNT BOARD ASS'Y	HH7-2416-000	18 - 3	TONER SENSOR ASS'Y
HG5-2223-000	7 - 15	MODULAR BOARD ASS'Y	HH7-2418-000	4 - 11	SOLENOID
HG5-2225-000	4 - 6	MCNT BOARD ASS'Y	HH7-2419-000	11 - 13	MOTOR, DOCUMENT FEED
HG5-2226-000	3 - 8	INTERFACE BOARD ASS'Y	HH7-2422-000	14 - 16	MOTOR, MAIN
HG5-2232-000	10 - 2	OPERATION PANEL UNIT	HH7-2424-000	11 - 1	CONTACT SENSOR UNIT
HG5-2233-000	7 - 15	MODULAR BOARD ASS'Y	HH7-2426-000	6 - 7	SPEAKER UNIT
HH2-1914-000	1 - 8	MODULAR CORD, 6P	HH7-2427-000	24 - T1	TRANSFORMER, AUDIO
HH2-2074-000	1 - 8	MODULAR CORD (GERM)	HH7-2430-000	24 - IC1	IC, HFS113F022A1, HYBRID
HH2-2219-000	1 - 8	MODULAR CORD	HH7-2431-000	24 - IC4	IC, H8D2965, HYBRID
HH2-2478-000	1 - 8	MODULAR CORD, 2P	HH7-2460-000	26 - 1	HANDSET UNIT
HH2-2824-000	1 - 8	MODULAR CORD, 2P	HH9-0259-000	6 - 16	CABLE WITH CONNECTOR, 11P
HH2-2946-000	6 - 19	CABLE, FLAT, 21P	HS1-1063-000	11 - 9	BUSHING
HH2-2947-000	7 - 3	CABLE, FLAT, 14P	HS5-0148-000	14 - 12	GEAR, Z47
HH2-2948-000	7 - 5	CABLE, FLAT, 23P	HS5-0238-020	8 - 5	GEAR, Z16
HH2-2949-000	6 - 20	CABLE, FLAT, 20P	HS5-0254-000	2 - 13	GEAR, Z16
HH2-2950-000	6 - 21	CABLE, FLAT, 16P	HS5-0310-000	13 - 2	GEAR, Z18
HH2-2951-000	6 - 6	CABLE WITH CONNECTOR, 3P	HS5-0311-000	11 - 16	GEAR, Z82D
HH2-2952-000	4 - 16	CABLE WITH CONNECTOR, 3P	HS5-0312-000	11 - 14	GEAR, Z59D
HH2-2953-000	10 - 29	CABLE WITH CONNECTOR, 6P	HS5-0313-000	11 - 15	GEAR, Z21/Z54
HH2-2954-000	6 - 13	CABLE WITH CONNECTOR, 10P	HS5-0314-000	11 - 7	GEAR, Z40D
HH2-2955-000	17 - 7	CABLE WITH CONNECTOR, 3P	HS5-0315-000	11 - 10	GEAR, Z21D
HH2-2957-000	13 - 14	CABLE WITH CONNECTOR, 9P	HS5-0316-000	11 - 11	GEAR, Z21/28B
HH2-2958-000	10 - 24	WIRE, GROUNDING	HS5-0317-000	14 - 14	GEAR, Z28

PART NUMBER	FIGURE & KEY NO.	DESCRIPTION	PART NUMBER	FIGURE & KEY NO.	DESCRIPTION
HS5-1042-000	12 - 6 13 - 20 14 - 18	BUSH	RB1-7334-000	19 - 9	GUIDE, JAMMED PAPER REMOVAL
HS5-1044-000	7 - 11	BUSHING	RB1-7341-030	15 - 2	GUIDE, SUB, CARTRIDGE, RIGHT
HS5-1089-000	13 - 5	BUSHING	RB1-8170-000	14 - 1	LEVER, RELEASE, D
HS5-1090-000	11 - 19	BUSHING	RB2-1655-000	20 - 2	BUSHING
HS5-1091-000	11 - 17	BUSHING	RB2-1656-000	20 - 4	BUSHING
HS5-2075-000	18 - 9	SPRING, PRESSURE	RB2-1657-000	20 - 1	ELIMINATOR, STATIC CHARGE
HS5-2077-000	11 - 6	SPRING, CLUTCH	RB2-1685-000	19 - 5	ROLLER, FACE UP
HS5-2078-000	10 - 9	SPRING	RB2-1686-000	19 - 8	FRAME
HS5-2129-000	10 - 16	SPRING, WHITE SHEET	RB2-1690-000	15 - 15	BUSHING
HS5-2141-020	2 - 8 8 - 3	SPRING, SLIDER	RB2-1706-000	21 - 2	SHEET, SEPARATION
HS5-2192-000	4 - 17	SPRING	RF5-1513-000	14 - 2	ARM, SWING
HS5-2193-000	17 - 3	SPRING, COMPRESSION	RF5-1514-020	16 - 9	GUIDE, CARTRIDGE, LEFT
HS5-2194-000	18 - 5	SPRING	RF5-1515-020	16 - 8	GUIDE, CARTRIDGE
HS5-2196-000	5 - 2	SPRING, WIRE	RF5-1533-000	16 - 7	PLATE, COMMUNITY
HS5-2197-000	7 - 14	SPRING, COMPRESSION	RF5-1534-000	16 - 2	ROLLER, TRANSFER
HS5-2198-000	7 - 9	SPRING, COMPRESSION	RF5-2358-000	16 - 1	GUIDE, TRANSFER
HS5-2199-000	10 - 14	PLATE, PRESSURE	RF5-2364-000	15 - 4	ROLLER, PRESSURE
HS5-2200-000	10 - 23	SPRING	RF5-2367-000	15 - 5	ROLLER, FEEDER
HS5-6023-030	10 - 26	ROLLER, BACK UP	RF5-2368-000	15 - 14	ROLLER, FACE UP
HS5-6024-000	5 - 3 18 - 10	ROLLER, PAPER GUIDE	RF5-2382-000	6 - 12	COVER, WATERPROOF
HS5-6068-000	12 - 9	ROLLER, SUB	RG5-3453-000	12 - 5	SWITCH LEVER ASS'Y
HS5-6069-000	10 - 20	ROLLER, DELIVERY	RG5-3463-000	15 - 3	FIXING ASS'Y
HS5-9012-000	5 - 7 13 - 21	SCREW, TAP M3X6	RG5-3476-030	15 - 16	FLAPPER
HT1-2148-000	1 - 1	USER'S GUIDE (ENGLISH)	RG5-3478-000	19 - 1	SPUR ASS'Y
HT1-3092-000	1 - 1	USER'S GUIDE (MODELE FRANCE)	RG5-3479-000	19 - 2	SPUR ASS'Y
HT1-5068-000	1 - 1	USER'S GUIDE (DEUTSCH)	RG9-1281-000	12 - 4	SCANNER ASS'Y
HY9-0007-000	27 - T1	LUBE, MOLYKOTE EM-50L, GREASE	RH2-5330-000	23 - TB301 23 - TB303	CONNECTOR, 2P
HY9-0022-000	27 - T4	IC-REMOVING TOOL (24-64P)	RH6-3384-000	23 - R302 23 - R319 23 - R328	RESISTOR, 3MOHM, 0.5W RESISTOR, METAL
QB1-3593-000	7 - 20	FOOT, PRINTER	RH6-3858-000	23 - R328	RESISTOR, METAL
RB1-2152-000	7 - 19	ROLLER, ARM	RS5-0788-000	14 - 11	GEAR, 32T/93T
RB1-7129-000	16 - 6	SPRING, GROUNDING	RS5-0789-000	14 - 7	GEAR, 37T
RB1-7172-000	13 - 13	SPRING, GROUNDING	RS5-0790-000	14 - 10	GEAR, 54T/19T
RB1-7185-000	17 - 2	ARM, PLATE, LEFT	RS5-0791-000	14 - 3	GEAR, 36T
RB1-7193-000	12 - 8	CAM, LEFT	RS5-0793-000	14 - 4	GEAR, 22T
RB1-7194-000	12 - 11	CAM, RIGHT	RS5-0794-000	14 - 5	GEAR, 24T
RB1-7205-000	13 - 16	SPRING, TORSION	RS5-0797-000	15 - 6	GEAR, 18T
RB1-7206-000	17 - 10	HOLDER, ARM	RS5-0798-000	14 - 6	GEAR, 15T
RB1-7236-000	20 - 8	PIN, CONTACT	RS5-0799-000	14 - 8	GEAR, 51T/17T
RB1-7237-000	20 - 6	PIN, CONTACT	RS5-2502-000	17 - 5	SPRING, COMPRESSION
RB1-7246-000	16 - 12	BUSHING	RS5-2504-000	20 - 3	SPRING, COMPRESSION
RB1-7247-000	15 - 1	GUIDE, PAPER	RS5-2505-000	20 - 5	SPRING, COMPRESSION
RB1-7257-000	15 - 9	BUSHING, SPRING	RS5-2508-000	15 - 10	SPRING, COMPRESSION
RB1-7284-020	19 - 3	ROLLER, FACE DOWN	RS5-2512-000	20 - 7	SPRING, COMPRESSION
RB1-7286-000	19 - 4	SPRING, WIRE	RS5-8543-020	19 - 7	LABEL, "WARNING HIGH TEMP"
RB1-7287-000	19 - 6	SPRING, WIRE	RS6-0380-000	14 - 13	GEAR, 23T/98T
RB1-7288-020	15 - 7	BUSHING	VS1-5057-002	16 - 11	CONNECTOR, 2P
RB1-7293-030	15 - 12	LEVER, SENSOR	VS1-5888-002	22 - JP1	CONNECTOR, PIN 2P
RB1-7294-000	15 - 13	SPRING, TORSION	WC4-5052-000	7 - 16	MICRO SWITCH
			WG8-5362-000	4 - 14 6 - 4 10 - 7	IC, TLP1241, PHOTO-INTERRUPTER

PART NUMBER	FIGURE & KEY NO.	DESCRIPTION	PART NUMBER	FIGURE & KEY NO.	DESCRIPTION
WG8-5362-000	13 - 18	IC, TLP1241, PHOTO-INTERRUPTER		7 - 24	
	17 - 9			7 - 28	SCREW, BINDING HEAD, SELF-TPG
WK1-5130-000	22 - BAT1	BATTERY, LITHIUM, CR2032/1HS	XB4-7401-209	7 - 25	SCREW, SELF-TAPPING, M4X20
WK1-5131-000	22 - C11	CAPACITOR, ELE, DOUBLE LAYER	XB6-7300-607	7 - 26	SCREW, TP, M3X6
WT2-0317-000	4 - 20	CLIP, CABLE	XB6-7300-807	12 - 14	SCREW, TP, M3X8
	7 - 30			14 - 19	
	11 - 24			15 - 8	
	12 - 17			7 - 27	SCREW, TP, M3X12
	15 - 18		XB6-7301-205	13 - 10	RING, E
	25 - 3		XD2-1100-642	13 - 4	PIN, DOWEL
WT2-0434-000	13 - 19	CLIP	XD9-0108-000	14 - 17	PIN, DOWEL
WT2-5026-000	4 - 19	CLIP, CABLE	XD9-0121-000	12 - 13	PIN, DOWEL
WT2-5034-000	7 - 29	BUSHING	XD9-0159-000		
	15 - 17				
WT2-5062-000	16 - 10	BUSHING			
WT2-5089-000	4 - 27	CLAMP			
WT2-5134-000	3 - 7	CLAMP, CABLE			
WT2-5465-000	26 - 3	RIVET			
WT2-5629-000	4 - 22	CLIP			
WT3-5020-000	1 - 7	CORD, POWER			
WT3-5023-000	1 - 7	CORD, POWER			
WT3-5058-000	1 - 7	CORD, POWER			
WT8-0053-000	8 - 14	REVT			
XA9-0476-000	4 - 23	SCREW, TP M3X8			
	10 - 31				
XA9-0863-000	6 - 9	SCREW, TAP M3X6			
	16 - 14				
XB1-2300-407	11 - 23	SCREW, BH3X4 (S)			
XB1-2300-807	3 - 5	SCREW, CROSS-RECESS, FCH			
	4 - 25				
	13 - 23				
XB3-6300-800	3 - 4	SCREW, RS, M3X8			
	4 - 26				
	5 - 6				
	6 - 10				
	12 - 16				
	15 - 11				
	16 - 13				
XB3-6301-000	2 - 11	SCREW, RS, M3X10			
XB4-7300-807	2 - 10	SCREW, TAP TIGHT, BINDING HEAD			
	7 - 23				
	8 - 13				
	10 - 30				
	11 - 22				
	12 - 15				
	17 - 13				
	18 - 11				
XB4-7301-007	4 - 24	SCREW, TAP TIGHT BH3X10			
XB4-7301-009	8 - 16	SCREW, BINDING HEAD SELF-TPG			
XB4-7400-807	21 - 5	SCREW, TAPPING, TRUSS HEAD, M4X8			
XB4-7401-007	3 - 6	SCREW, PAN HEAD SELF-TAPPING			
	5 - 8				
	6 - 11				

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